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T R E A T I S E
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I N C I D E N T T O
L I T E R A R Y a n d S E D E N T A R Y P E R S O N S .

By S. A. TISSOT, M. D.

Translated from the last FRENCH Edition:

With NOTES, by a PHYSICIAN.

E D I N B U R G H :

Printed by ALEXANDER DONALDSON.

Sold at his Shop, No. 48, East corner of St. Paul's
Church yard, London ; and at Edinburgh.

M. DCC. LXXII.



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L I T E R A R Y A N D S E D E N T A R Y
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By S. A. TISSOT, M. D.

Professor of Physic at BERNE.

Morbus est etiam aliquis per sapientiam mori. PLIN.

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ADVERTISEMENT.

THIS celebrated work has already been translated into almost all the European languages. The present Edition has been carefully revised by a Physician, who has added notes, where needful, for explaining or illustrating the subject. There is only another English translation besides this, by one Mr. MACON LEE, who has fallen into several material errors, which either his ignorance of Physic or perhaps the incorrectness of the French Edition from whence he made the translation, has occasioned: Many instances of these might be given, but we shall only specify the few following as a proof of what is here asserted, inserting the true reading in the opposite column.

Former Translation.

Lond. Edit. Page 32.
line 3, 4. —he lost
his army rapidly.

P. 43. l. 11—13 —his
wife and children
see no part of his
body, and his breast
is covered—

P. 76. l. 13.—the disorder
perishes immediately.

P. 82. l. 6, 7.—but he
is so unlucky that he
destroys the edifice
of his fashionable
pleasures, which is
become the foundation
of his pains.

Present Translation.

Edin. Edit. Page 26.
line 5.—his strength
quickly failed him.

P. 35. l. 6.—8. —his
wife and children
know not the use of
stays, and their breast
is covered—

P. 61. l. 23. —the patient
dies speedily.

P. 65. l. 24, 25. —but
he is so unlucky,
that in rearing the
edifice of his fashionable
pleasures, he
lays the foundation
of his pains.

*Former Translation.**Present Translation.*

P. 83. l. 15.—and invigorating the body.

P. 94. l. 3.—and order succeeds irregularity.

P. 119. l. 12, 13. — expelling the slime, filth, phlegm, and acids.

P. 128. l. 7. fresh food.

P. 133. l. 11. —15.— prevent the spitting of blood, which but rarely happens; that the patient guides himself by the directions in § 98, which may cause it to cease and prevent its return: and all other means should be used for the same purpose, such as, &c.

P. 139. l. 11. —Oatmeal and sulphur.

P. 66. l. 24.— and enfeebling the body.

P. 73. l. 29.—which is very sensibly affected by their order or irregularity.

P. 93. l. 1, 2. abstaining from fatty substances salted meats, pastry, creams, and acids.

P. 98. l. 19. —cooling remedies.

P. 102. l. 8. -13. it sometimes happens, tho' rarely, that the disease makes all the progress mentioned in § 98, and that the patients even die without spitting any blood; in such a case, every thing proper ought to be used to check the disorder, the most effectual are, &c.

P. 106. l. 24. —Oxymel and nitre.

Besides, in the former translation, *Sena* is always put for Jesuits bark — *butter-milk* for whey — *pimples* for tubercles, &c. and there are also several sentences omitted, with all the Author's Notes.

N. B. The notes marked T. are the Author's; the rest are peculiar to this Edition.

TO THE
Baroness of WALLMODEN.

M A D A M,

THIS little work, intended principally for the use of Ladies of Fashion, ought to be more particularly offered to such as unite the accomplishments, virtues and charms of that situation without the prejudices. It did not, *Madam*, take up much of my time to discover a Patroness; your name is found closely connected with the most enlarged idea of a Dedicatory Epistle, or rather gives it birth, and proves, that, if I am incapable of writing a good book, I perfectly well understand how to inscribe it. Receive it then, *Madam*, with that good-nature which is your peculiar characteristic,

teristic, and consider it as an humble mark of the profound regard, and respectful sentiments, with which I have the honour to be,

Madam,

Your most humble,

And most obedient servant,

Lausanne,
Feb. 7, 1770.

TISSOT.

The AUTHOR'S PREFACE.

DURING these last hundred and fifty years, many volumes have been written on the diseases of the poor, and their remedies; by which name the authors meant indiscriminately all ranks of people: and though these works are badly executed, they at least prove the importance of the object was known. It is now ten years since I have occupied myself in such enquiries, and can venture to say, that of all my labours, this work has been the most pleasing.

At the beginning of this century * RAMAZZINI, a celebrated Italian physician, published an excellent treatise on the diseases of mechanics, in which he hath inserted a chapter on those of the recluse. Hence several other physicians have handled the same subject, wholly or in part, but much less judiciously than he.

We have a great number of very good works concerning the diseases of the army †.

Messrs. Cockburn, Lind, Poissonnier, have occupied themselves with the health of mariners ‡; and we might form a small library by collecting all that has been written concerning men of letters: upon which head, the circumstances in which I have past the last four years, determined me to write a discourse in Latin §, which I have since translated, and considerably improved.

* *De morbis artificum.* This work appeared at Modena in 1700, and augmented with a supplement at Padua in 1713.

† Drs. Pringle, Van Swieten, Monro, and Brocklesby, may take place of all the other authors.

‡ Ramazzini has likewise given a chapter on this subject.

§ The Diseases of Sedentary Persons, which is bound up with this Essay.

x The P R E F A C E.

It is obvious from the above enumeration, that much has been written on the health of people of all classes, except *People of Fashion*, who are precisely the very persons whose health is the most shattered.

It is true, that the same *Ramazzini*, who has treated of the diseases of the recluse, the studious, mechanics, soldiers, and sailors, has given another work on the means of *preserving the health of princes*, in which there are many things which may be applied to courtiers; but this work is more ingenious than practical, as he confines himself to diet, and says nothing of diseases *: he has not therefore filled up the space of which I treat. The only one to the present time who has touched upon the subject, is M. *Carl*, physician to the King of Denmark, who in 1740, published a book called *the Court Physician* †, written in German, which has prevented my reading it, and which, not being translated into any other language, is of use but to one nation only, who are themselves but little acquainted with it. We may then assert, that the work which bears this title, as yet exists not for the greatest part of Europe, though so extremely necessary. But though I felt the necessity of such a work, I was at first far from undertaking its removal. I repeat, *This subject was not of my choice*, and without enumerating the different reasons which since induced me to write upon it, I shall only mention two which strongly determined me against it; the first is, that I had destined every moment which I could detach from the avocations of my practice, to correct and finish my first

* *De principum valetudine tuenda commentatio*, Padua 1710. This work, if I mistake not, was translated into French in Holland.

† *Medicina Aulica*, &c. Altona, 1740

works, and by degrees, one more considerable, to which the importance of its object, and the number of observations which I had made upon the subject had attached me. The second, still stronger, was, that it could not be properly effected but by physicians who reside much in courts, and have great experience in large cities; who have seen, in the most expanded view, the reigning errors which detriment the health, and have multiplied their observations of the consequences; and finally, whose *situation* has furnished them with numberless materials upon the subject, which *mine* has happily impeded me from making such vast acquisitions. It is amazing that none have executed a work of the kind I have undertaken: it is the business of the sailor who has been in the midst of the tempest to describe it: he is certainly a better judge of the tumultuous elements than one who has always been at too great a distance to observe them completely; by living always upon the sea, storms become familiar, and are no longer regarded as an evil.

In doing what others ought to have done, I shall be happy, if, struck with the omission and imperfections of this little work, they should be induced to fill up the one, and correct the other. But I must premise, to justify myself in part, that it was not my design to enter into long details concerning diet: enough is to be found on that subject in many works sufficiently ample. We may refer to one *on Health* by Mr Abbé Jaquin, or mine upon the *Health of Sedentary Persons*. Nor shall I give complete treatises on each disorder mentioned; my only aim is to give a general table of the *Errors of Regimen*, and their evil consequences. I shall speak of no remedies but what those disorders require: and finally, shall only make
known

known to the patient what he ought to know, in order to concur in the cure, which is very often only impossible when the patient will not assist the physician.

Those persons whose health is the object of this work, are almost always within reach of assistance, and indeed the most eligible assistance: it is perhaps for this reason that their disorders have not been treated as those of other classes have; but accustomed to what is too often done for them, without any trouble to themselves, they imagine that physic in all cases may be brought to a similar docility, and persuade themselves that they may be cured without any inconvenience to themselves, or even joining in the cure. They think they do a great deal in taking the remedies prescribed, but still continue the same mode of life which brought on the disease: they would fain be cured while they labour to ruin health; and after having hurt their constitution, will give up nothing to re-establish it.

It is doing them service to make them sensible of the impossibility of their expectations being gratified; they are contrary to the immutable Laws of Physic, which are happily beyond the reach of man's fantastical will, or the caprices of fashion. The cure of a disorder varies and depends on many exigencies and circumstances. It may be considered as a machine composed of many parts; if they do not all agree, if there is not a perfect harmony in all their movements, the effect must necessarily fail. All the experience and care of a physician cannot give health to the diseased if he does not assist in the cure, by complying with whatever his disorder requires, and abstaining, as much as possible, from every thing which may retard or render his cure impossible.

A N

E S S A Y

ON THE DISEASES OF

PEOPLE of FASHION.

I N T R O D U C T I O N.

S E C T. I.

WE are well and enjoy our health when all our functions operate with regularity, ease, and without obstruction.

S E C T. 2.

We enjoy perfect health when it is the least susceptible of irregularity, and not subject to be affected by common occurrences, and less by those unavoidable things which physicians term *non naturals* *, from the use of which none can be

* *Non naturals.*] Physicians when considering the causes of diseases, distinguish them into two classes; namely, such as *predispose*, or prepare the body to be acted upon by the other

2 INTRODUCTION.

be exempted, such as *viands, drinks, air, motion, rest, the passions, sleep, wakefulness, secretions, and excretions.*

SECT. 3.

We are delicate when affected by occurrences not carried to excess.

Delicate persons are often well, but never sure of continuing so long, because their health depends too much on foreign circumstances. Such a state of existence is not to be envied, since it is a perpetual vassalage, in which we are always compelled to fix our attention upon ourselves in order to avoid dangers, not always to be known, or when known, avoided.

SECT 4.

Delicate persons soon become valetudinary, by an habit which prevents the faculties from operating regularly, so that without any apparent disease, they are often out of order without being able to assign the cause. No doubt there is a cause, but so trifling as to be unperceivable. This second degree of physical

set of causes which they term *occasional*: in enumerating this last class they consider them as arising from one or more of the six following heads. 1. Air. 2. Meats and Drinks. 3. Motion and Rest. 4. The Passions. 5. Retentions and Excretions. 6. Sleep and Watching; all of them necessary to the preservation of health and life, so long as properly enjoyed, but from the abuse of which spring all the infinite number of diseases to which the human race is subjected. It is by considering in what manner people of fashion use or abuse these, that we can account for their being subject to some disorders more than others; and having once found out the spring and origin, a great step is gained towards the cure of diseases.

INTRODUCTION. 2

delicacy is miserable indeed ; for the *flow of life* which characterises good health, and which according to natural philosophy is the true source of happiness, is wanting.

They are scarce ever well ; one day of health is bought by months of anxiety, and the irregularity is sometimes universal throughout the faculties, without being peculiarly distinguishable in any. They suffer a general depression without being able to point out their complaint. Many are desirous to exchange such a situation for a violent and dangerous disease, if limited, or even for death itself when it is arrived to its last hopeless period, and when the moments of life are counted only by pain--but death often makes them wait : and I have frequently seen, with equal grief and astonishment, valetudinarians, oppressed with the weight of continual anguish, at times tormented with grievous disorders, resist him for many years, and neither able, critically speaking, to live or die, but victims to a state of existence of which the causes have not yet been sufficiently assigned, called the Avarice of Life.

SECT. 5.

The number of delicate persons, and of valetudinarians, are not equally distributed through the different degrees of society : There is one in which they are much more numerous than in the rest, and in this degree we find some kinds of diseases much more frequent than elsewhere.

1. Which is that degree ?

A 2

2. What

4 INTRODUCTION.

2. What are the causes which so unhappily distinguish it ?

3. What are its diseases ?

4. Which are the methods of cure ?

These are objects upon which it would be proper to fix the attention of those persons interested therein, and their physicians. I shall examine them successively ; but we must first of all determine what is the habit of body which gives each faculty that permanent regularity that constitutes good health, and what class of men it is most frequently found in.

ARTICLE

A R T I C L E I.

The CAUSE of GOOD HEALTH.

S E C T. 6.

THREE things principally constitute perfect health : the first is a strong fibre *, which giving a proper degree of motion to the vessels and arteries, maintains the regularity of the animal functions ; while a fibre too relaxed, wants strength, and is incapable of the least degree of exertion without manifest inconvenience : the blood in the small vessels circulates imperfectly ; the humours for want of motion corrupt, and become sharp : the secretions, the name given to the separation of the fluids, such as spittle, phlegm, bile, sweat, &c. in the organs designed for the operation—the secretions, I say, are imperfectly performed.—The blood is clogged with part of those humours which they should discharge, and the functions to which those humours were necessary suffer by their want, or by their bad pre-

* *Strong fibre.*] A proper strength of fibre is undoubtedly necessary to constitute *good health* ; but at the same time we must observe that there are limits beyond which the strength of fibre ceases to be salutary, but on the contrary is productive of many severe disorders.

paration. Hence it arises, that the bad quality of the spittle disorders the teeth, and hurts digestion. Whether the bile does not separate, or separates improperly, its effects import that the intestines are vitiated, and the health consequently suffers.

Hence we see, from this first condition, sufficient strength in the fibres, and consequently in the vessels and arteries, which are fibrous, secures the perfection of the animal functions, among which the heart, the principal cause of motion, and the stomach, are the most important; when they perform their functions well, it is rarely that any other is disordered. Thus in reciting the first condition requisite to health, we may join the regular motions of the heart to those which are digestive.

SECT. 7.

The second condition necessary to a perfect state of health, is an equal perspiration, and when the first condition exists, this generally takes place. Perspiration is the most considerable evacuation of any, it equals at least the one half of what we eat and drink; if it is incompetent, the body is over charged with sharp humours, which it ought to discharge; by this means we are oppressed by the retention of such a mass of humours; and if this acidity deposits itself upon the skin, it produces many maladies, but if it fixes itself upon any interior organ, it produces diseases of a much more serious nature*.

SECT 8.

* In this country it is most commonly thrown upon the lungs, as the great number of consumptive persons sufficiently prove:

S E C T. 8.

A third condition, without which the health is very precarious, is to have firm, steady nerves, that is to say, not being too sensible to impressions, but which return to the organs of sensation nothing but what is proper, nor disorder the whole frame for a trifling cause, as it happens to all who have weak nerves, which having part in all the animal functions, cannot but impede their progress, when subject to too great a degree of sensibility, which renders the impression of what acts upon them more affecting than they can bear. Their motion on the parts through which they are distributed, is too strong and irregular; whence arises an universal disorder throughout the animal system, and a deprivation of health.

S E C T. 9.

From what I have advanced it is evident, that a strong fibre, an equal circulation of the blood, a regular digestion, a properly supported and sufficient perspiration, and finally, steady nerves, are the real requisites to assure an enjoyment of good health, and are found with those who enjoy it most.

If it is demanded who enjoy those requisites, reason replies, the labourer, who, in this respect, is superior to the mechanic, but unhappily inferior to the labourers of former times

prove: Rheumatisms, and many other diseases, owe their existence to this cause.

—times

—times when labour alone was his employment.
 —Nay, at present there are nations, who, unknown to polite diseases, die only by accident, or through age.

According to our departure from habitude, our health gradually diminishes; our labourers are not equally robust, because they do not live a life equally rural; many have been servants, others soldiers, and infected the village with the customs of the city.

The different mechanics employed by citizens, independent of the diseases incident to their various avocations, prejudice their healths, by departing from rural simplicity, which dictated by nature, does that which is most analagous to our constitution.

Where Nature's laws o'er-rule capricious sense,
 A healthy body is the recompence.

The deviation from simplicity increases among the more substantial citizens, and their health proportionably diminishes; they exhibit many diseases unknown to the fields, and which are triumphant in high life; an order in which we must comprehend, if we consider health relatively, all persons, who, though not of the same rank, pursue the same course of life; that course of life, which, having nothing useful to support it, depends upon continual dissipation—introduced and continued by the sons of idleness, who, to defeat the insupportable tediousness of a life disagreeably inactive, attempt to kill time by pleasure: but as real enjoyment is merely relaxation, they are compelled to have recourse to artificial subterfuges, whose only merit are
 singularity,

singularity, in opposition to nature, and the glare of deceptive show. Such pleasures may be real to such as fancy themselves to be merely machines; an assertion which no arguments can maintain, and which detaches us from all that is dear. Undoubtedly the origin of luxury, which is only the combination of a multitude of superfluities, was invented by man to mingle variety with his being, or perhaps to distinguish himself: This is the perfect situation of the whimsically hippish, who require a great number of remedies to cure them of nothing. The healthy infant is amused with any thing, while the sickly child plays with every toy without being pleased.

Unhappily this false taste is contagious, for from those who invented it through necessity, it hath past as a fashion to such as it detriments very much. It is generally among the well educated, who seem to propose it as the principal object of their pursuit; they are so careless with regard to health, that the greatest part of their diseases are scarcely known in the country; those which are common to both places, have very different effects, and are much less malignant in the country than in town.

SECT. 10.

To assign the cause of such difference, we must examine in what manner the six non naturals*; which I formerly mentioned, are used, as they affect mankind in general, as well with regard to his formation, as the va-

* *Non naturals.*] See note, page 1.

riations observable in his temperature and health.

In comparing the food and drink of the labourer with the nutriment of people in *high life*, the air breathed by each, the exercises they take, their sleep, the regularity of their secretions, and, above all, their passions, we shall easily perceive the cause of their different temperaments, their health, and their strength.

ARTICLE

ARTICLE II.

OF ALIMENTS and LIQUIDS.

SECT. II.

THE coarsest bread, porridge, which is often only bread soaked in boiling water, and seasoned with a very little butter and salt, skimmed milk, butter milk (in both cases the greasy particles are separated from the milk) whey separated from both grease and curd, rarely new milk; new cheese, for the most part of the poorest sort, with very little salt; vegetables, and those commonly the least savoury, such as radishes, beans, kidney-beans, cabbages, beet-roots, lettuces, potatoes, leeks; some common fruits; rarely butchers meat, and sometimes bacon, which is only seasoned with a little salt, are almost the only things which compose the food of the labourer, attached to what is really advantageous to him, regardless of custom.

His only foreign seasoning is pepper; he sometimes adds onions, or in some countries garlick: himself, his wife, and his miller, furnish his household, get in the harvest, and prepare the food. His drink is generally water.

S E C T. 12.

If we compare these aliments with those investigated in many volumes, they will appear a very incomplete collection ; for except the bread, which, however is widely different, the salt, butter and pepper, we find none of them on the tables of the great ; or if they are permitted to appear, they are so much disguised, as not to be easily known.

The most juicy meats, the highest flavoured game *, the most delicate fishes stewed in the richest wines, and rendered still more inflammatory by the addition of aromatic spices ; poultry, crawfish, and their sauce ; meat gravies, variously extracted ; eggs, trifles ; the most savoury vegetables, the sharpest aromatics lavishly used ; sweet-meats of all kinds, brought from all parts of the world ; candies infinitely various ; pastry, fries, creams, the strongest flavoured cheeses, are the only viands introduced by taste.

* *Game.*] Our ingenious author in enumerating the abuses with respect to foods, which have crept to the tables of the great, has overlooked one of the greatest, and which, I am certain, is productive of as much mischief as any he has mentioned ; I mean the practice of keeping game, and some kinds of animal food, till such time as, by putrefaction, it becomes a nuisance to those whose taste is not sufficiently refined for such delicacies—All animal food is *putrescent*, and game particularly so : Feed any one, for no very great length of time, upon such diet, in its freshest state, without allowing a proper proportion of vegetable aliment to correct it, and you will very soon see it productive of putrid diseases : How much more destructive to health must the use of aliments be which are putrid ere they are taken into the body, and where, like any other ferment, they diffuse their malignant influence through the whole mass.

The

The strongest wines brought from every place which produces them; brandy, in the most attractive and dangerous forms; coffee, tea, and chocolate, are found upon their tables.

If we calculate the hands employed to furnish out a middling entertainment, we shall find them amount to some hundreds; for grand festivals we must count by thousands. It is easy to perceive the different effects of such opposite regimens.

S E C T 13.

The first may be reduced to aliments composed of flour and milk, just sufficiently flavoured to flatter those organs disposed to be agreeably affected by the necessaries which it is their business to receive. By this means such food loses what made it perniciously agreeable, and consequently man for whom it was intended as mere nourishment, takes no more of it than what is necessary. His stomach is therefore never over-charged by quantity; the precise mastication, at present only observable in low life, greatly facilitates digestion, and effects it without trouble. The food neither curdles nor corrupts; no acidity, no sharp fumes disorder either stomach or bowels: it causes neither cholics, costiveness, nor purgings, but forms a soft chyle, which passes through the vessels without irritating or rendering them feverish, and by its glutinous quality repairs what we lose, and gives additional nourishment, while its earthy and watery superfluous parts are voided excrementally according to the intent of nature. In a few hours the distribution and employment of this first meal is completed, appetite returns,

B

and

and is gratified with the same pleasure ; and the same order is continually observed.

S E C T. 14.

A person in high life generally gratifies appetite, and dilutes thirst with the sharpest things, or things which have so pleasing an impression on the palate as to excite a desire to indulge with more than is needful, which is less than what the working labourer requires : hence arise the inconveniencies attendant on repletion ; his stomach being affected because the nerves are more so, struggles the whole frame into disorder ; the chyle, as sharp as nourishing, communicates the tremor to the vessels ; the rapidity of the pulse, some hours after such a meal, proves its effect. This temporary fever, which continually seeks relief, being daily repeated, must inevitably wear out the constitution ; all the organs of secretion being inflamed ; the functions are disordered, and the whole animal œconomy thrown into confusion. The moment the next meal is prepared, he sits down to eat, not that he has any occasion, but is cheated into desire by the uneasiness of his stomach, which he ought to qualify with a little fresh water and then fancies himself hungry, and will eat. Variety, smell, colour and steam, invite : he decides in favour of a particular dish—he is served, and tastes it, but sends it back and tries another : he essays a multitude, and eats of some, the catalogue of which would almost make a volume. They are composed of an infinite number of articles, the mixture of which is one of the greatest obstacles to digestion ; tender meats, vegetables and fruits, are corrupted, and their digestion prevented by other aliments,

or

or by drinks, from whose long stay on the stomach, corruption, rather than digestion, takes place; continual irritations very opposite to those sensations which characterise health.

The first of these regimens favours the conditions requisite to health, the latter totally destroys them.

We have regarded the use of salt, leaven, and inflammatory drinks, as the principal causes of the shortness of human life; and it naturally appears to be so; for whatever quickens the motion of the heart, shortens the thread of life: but what comparison can be made between the internal irritation of salt, leaven, and the moderate use of strong liquors in former times, and the meats and drinks at present prepared for the tables of the great? What difference in the effects from the same causes? The same regimen which prolongs life, bestows good health. We may easily perceive how much this destructive regimen, which renders existence so miserable, tends to abridge it.

It would be useless to enter into a larger detail on the pernicious effects of each particular aliment or drink here indicated, they may be found in more copious works. It sufficeth in my plan to make known the dangers in general.

I shall speak now of what regards air.

A R T I C L E I I I .

O f A I R .

S E C T . 15 .

IN this article people in high life seem to have the advantage, If we compare the air of their apartments, which are large, lofty, often airy, and always clean with the small chambers of the lower class of people, which the author of *Advice to the People* has observed, are generally infected, we should imagine the air, breathed by the former, is far preferable to that breathed by the latter. But in the first place, the labourer resides but little in his chamber, passing the greatest part of his life in the open air, which is much superior to what is found in elegant apartments, be they as large and convenient as possible. The inhabitant can only be furnished with town air, which even in the streets, and most healthy places, is far inferior to the air of the country, but very unwholesome in many quarters. In the second place, this air is often detrimented by their perfumes, whose effluvia, in fact, does not disperse any of the impure exhalations of lowly habitations, but frequently by determining the

the blood towards the head, and affecting the nerves, prove equally hurtful.

S E C T. 16.

Thirdly, The peasant, breathes the air in its purest state. He rises and goes to bed with the sun, and enjoys all the advantages which the presence of that planet above the horizon bestows on the atmosphere. Advantages demonstrable by the daily observations of the effects they produce upon animals and plants, and which proves that its influence is the soul of whatever exists.

The morning air gives to him who breathes it, a strength and spirits which he feels the remainder of the day; the exhalations from the ground, the moment the plough opens the furrows, those of the dew which is the juice of vegetables, are a volatile balm, and those of the flowers, which are never so lively as when the sun rises, give such as enjoy the country air, under these different circumstances, a principle of life unknown to those who only breathe the air of chambers; who by their care to ventilate them, prevent it from becoming malignant, but cannot render it salutary; it sufficeth to support life, but cannot establish it.

S E C T. 17.

A fourth observation to be made is, that air freely circulated, which the peasant enjoys, is another grand cause of strength and health, which the opulent man, who seldom quits his apartment, and carefully avoids the least breath of
wind,

wind, who always goes out in a coach or chariot, where no more air is admitted than what will just prevent suffocation, is deprived, and that privation must undoubtedly be pernicious.

Wind is one of Nature's grand agents, the impressions of which are necessary to all organised bodies. Motionless air is to animals and plants the same as stagnant waters to fishes formed to exist in rivers. Thus, in being anxious to preserve ourselves from the wind, we do ourselves a real injury : and this dangerous precaution exposes us to many serious evils, at the same time that we cannot absolutely avoid it, which often happens.

It is astonishing that man, who cannot exist a moment without air, is so terribly afraid of it, and so little attentive to the quality of what he breathes: he cannot be doubtful but that savage nations, (and such there are) and even those whose food is unwholesome, are healthy from being exposed to the air. And it is now known, without admitting a doubt, that sheep, whom no care, no regimen, no nostrum, can secure from the rot, are sufficiently safe if folded, during the winter, in the open air. That these comparisons drawn from savages and animals, may not be objected to, it must be premised, that the general laws of the animal œconomy are the same with respect to men and brutes, and the baleful influence of the air equally affects the health of the greatest beauty beneath her gilded roof, the sheep in the fold, and the plant in the greenhouse : we are sensible of the prodigious difference in strength and vigour, between a plant which grows in the open air, in a soil but little cultivated, and one trained up under cover
by

by the assistance of stoves. This difference is distinguishable between the citizen and countryman. And the paleness of him who seems to live only in the night, reminds us of that dingy whiteness which is the general colour of such flowers as are sheltered from the direct rays of the sun, and the brightness of the day *.

* *Air.*] With respect to this article of air, people of fashion, as our author very justly observes, deprive themselves voluntarily of a blessing which the peasant enjoys. That air is necessary for life is clear from the many experiments which the air-pump affords; but it is not only necessary to have a certain quantity of air, but we must likewise have a change or free circulation of it: Every time we inspire, we take in by our lungs something salutary from the air; every time we perform expiration we throw out something noxious from our lungs—by this we may judge that in a very short time the air will be deprived of its salutary and loaded with noxious particles—hence the necessity of a supply of fresh air. How far the present mode of finishing the apartments with stucco, and making doors and windows so close, is productive of this necessary renewal of air, I leave every one to judge who has seen the necessity of erecting ventilators, in new built houses, in order to force up the smoke of the chimnies, a sure sign of the want and necessity of a proper circulation of air; but further, people of rank being bred up in, and accustomed to, such warm apartments, think then what they must suffer, when after being stowed up in public places, heated not only by the number of lights, but likewise by the crowds of people met together, they expose themselves at parting, when perspiring highly to all the mischiefs arising from cold moist air applied to bodies in that situation;—hence, the numbers we hear daily complaining of having caught colds, sore throats, rheums, and a thousand other complaints, after being in crowded places of public entertainment.

A R T I C L E IV.

Of MOTION and REST.

S E C T. 18.

THERE are two principles equally demonstrable in that part of physic which considers the mechanism of the animal functions, called *Physiology*; the one is already pretty explicitly mentioned, that strength, and the regular circulation of the blood, are the basis of health: the other, that nothing assists the circulation so much as exercise, of which there are none but must have noticed the visible good effects, some time in their lives, in themselves or others. These two principles admitted, we may at first sight, deduce a judgment therefrom, which manner of life is most conducive to health, that of the opulent, shut up in his own house, or carried about in vehicles contrived by art to move rapidly without communicating motion to those who are inclosed in them; or that of the labourer, who is in a continual motion, tolerably equal: *This* enjoys all the benefit of exercise, *that* is a victim to all the ill conveniences attendant on inaction, and to those which are the effects of violent agitation, such as rapid hunting, dancing, a quick journey, or other brisk motions, which are extremes opposite to
his

his ordinary manner of living ; while the labourer is equally unacquainted with inactivity, or too violent motion. He sometimes makes efforts which have their inconveniencies, but different from those produced by too quick a motion. He scarcely knows what it is to run ; his dances are not over heating ; he does not hunt ; and when he is obliged to exert himself too much, 'tis in consequence of his dependance on the wealthy, when he may be deemed the victim of their irregular manner of life.

S E C T. 19.

The order which authors, who have treated on diet, have commonly observed, leads me to speak concerning sleep ; but as it principally depends on the passions, I shall make them to precede that article, though generally placed as the sixth, when perhaps it ought to have been the first.

Motion and rest.] For the disadvantages arising from too great an indulgence of rest and want of exercise, see our author's treatise on the Diseases of Sedentary People.

A R T I C L E V.

Of the PASSIONS.

S E C T. 20.

THE passions have a more essential influence and efficacy on the health of man than motion, aliments, or even air itself. Strong passions, though the most agreeable, always exhaust, and sometimes kill upon the spot: the sorrowful passions absolutely destroy the animal œconomy, and doubtless, are the general causes of languishing diseases.

If we compare the situation of a man in high life, to those of the lowly, when under the influence of passion, a greater difference will be observed than in any other article. Before we come to this parallel itself, let us for a moment consider the simple action of the soul with respect to these two classes of men: we shall find it labours greatly in the one, and very little in the other; because the first has continually before his eyes, and in his imagination, a variety of objects that keep him in continual agitation, while the other is troubled with very few, which presenting themselves to him regularly as they succeed each other, he can almost transact his business

business like an automaton without any reflection. This œconomy of ideas is one of the surest preservatives of health, which is almost always in an inverse ratio with the faculties of the soul; on this occasion we may apply those beautiful lines of the epistle to Monsieur Montule :

Unerring Nature, whom true wisdom guides,
For all her children equally provides;
In brutes an instinct limited displays,
And gives them health, denying Reason's rays.

S E C T. 21.

If we only use them in thinking deeply, or strongly agitated, we shall discover how the passions detriment us; there is between them and mere intense application, the same difference as between convulsions of the body (strong passions are the convulsions of the soul) and great exercise.

The ambition of honour, the love of titles, the desire of possessing such a fortune as luxury renders necessary, are three principles that incessantly animate the man in high life, keeping his soul in continual agitation, which alone would be enough to destroy his health; frequently exposed to a reverse of fortune, to mortifications, to sorrows, to humiliations, to rage, to vexations, which continually imbitter his moments; and what aggravates the danger of such distressing impressions, is the necessity he is under to constrain or mask them.

S E C T. 22.

S E C T. 22.

The labourer has no ambition but to have a plentiful crop, and does not place his happiness in a multitude of objects, which being likewise the happiness of others become subjects of rivalry; a prize that every one disputes: all his wishes are for a fertile season, and his neighbour's wishes are the same; they do not run counter to each other: but the man who is only happy in his expectations of a place of dignity, pension, title, favour, or even a smile, which a hundred besides himself, of more influence and merit, are equally ambitious to obtain, lives surrounded by a world of enemies, by each of whom all his actions are suspiciously observed. Fear, diffidence, jealousy, and aversion, reside in his heart and disorder his several functions.

Lancisi, principal physician to two popes, and long a witness of the tumults of a stormy court, has long ago mentioned the impossibility of courtiers being healthy; “*because*, (says he) “they take no exercise, and their minds being continually agitated between hope and fear, never have a moment's repose; it is therefore not at all surprising if they are weak and exposed to hypochondriac complaints and diseases of the head*.”

In this continual conflict of jarring interests, when one of the competitors succeed, the souls

* *De Nativis Romani Cœli qualitat. cap. 17.* In the preceding § he very well describes the dangers arising from the mode of life adopted by the nobles and rich inhabitants of Rome. T.

of the rest are cruelly torn ; and what is still more distressing, in the very moments when they are on the brink of despair, they often find it an indispensable duty to go and embrace their successful rival with a countenance of seeming serenity. The love of rank in all people, their ardour to eclipse their equals in all things, is obvious in various situations ; but stronger, undoubtedly in courts than elsewhere. In the mean time it exists, and is well supported in every city where a number of people of condition are assembled, and where, on that account, there are the same objects to excite emulation, presenting every moment some cause of discontent. When the soul is in such a situation it necessarily influences the health.

SECT. 23.

Examples of persons who have died on the spot through the effects of strong passions are not rare, authors abound with them.

The emperors *Nerva* and *Valentinian* perished by excess of rage * ; *Vinceflaus*, King of Bohemia, died in the same manner.

Excessive grief, whatever be the object, is not less fatal : *Adrastus* died on his return from the siege of Thebes, on hearing of the death of his son *Agyales*, and the news of the death of *Edward* the Black Prince, killed his father *Edward* the third. The daughter of *Casar*, and the Empress *Irene*, died on being informed, the former of the

* *Nerva* was offended at *Regulus*, one of his officers, and *Valentinian* at the *Sarmates* who had made inroads into *Illyria*. His passion was so violent, that while he threatened instant destruction to their nation, he was seized with a vomiting of blood, which carried him off. T.

death of *Pompey*, the latter of that of the Emperor *Philip*, their respective husbands. *Antigonus Epiphanus* could not sustain the shame of a defeat; he declared to his friends that grief killed him: his strength quickly failed, and he died soon after.

Joy itself has its martyrs. When the three sons of *Diagorus*, victors at the Olympic Games, came to place their crowns upon the head of the happy parent, he could not sustain the ecstasy, and died on the spot. Such sensibility, impressed by good fortune, is too affecting; our nerves were not formed to bear such extremes, and probably those of his heart were rendered paralytic.

The amazing applause bestowed on a new Tragedy of *Sophocles*, and a new Comedy of *Philipidas*, each being advanced in life, was productive of a fatal satisfaction to both.

But of all the passions there are few that murder so many as successful ambition or humbled vanity; examples of which occur in no part so frequently as in courts.

Alonso Pinson, one of the lieutenants to *Christopher Columbus*, who was in great haste to arrive before him at court, on the return from their expedition, died of grief because they would not receive him without his chief. And captain *Monk*, that able mariner, the first who penetrated to the extremity of *Hudson's bay*, offended at the manner in which he was treated by the king of *Denmark*, upon his going to take leave of him in order to embark for a second expedition, was seized on the spot with a fit of grief, retired to his bed, and expired soon after.

In a late work *, we read that one of the first

* Tiffot's letter to Haller.

T.

magistrates of a republic in Switzerland, fell down dead at the feet of his rival, who came to supplant him, on his approaching him with a smiling countenance in order to be congratulated. And one of the greatest professors that Germany hath this age produced, having received an affront from one of his colleagues in disputing the passage, could not overcome the vexation, but died in a few days.

Such excesses of passion are not to be seen every day ; but those examples which prove their force, teach us that their effects are dreadful. In a less degree they do not appear so fatal, though they still do much mischief : They sow the seeds of disorders languishingly oppressive, which in time display themselves and destroy without our ever being sensible of their origin. As great employments expose us to the frequent effects of quick passions, courts must of necessity be the most unfavourable places to health : the more the number of circumstances are increased by which happiness is enslaved, the more is that happiness diminished.

S E C T. 24.

The crowd of people with which the man of rank is surrounded, and whom he thinks necessary to his occasions, in reality multiply his troubles, disturb his repose, and are a continual source of confusion to him, because his happiness depends upon a number of inclinations, which he can never completely control, but finds as many obstacles as heads.

The peasant, without ambition, title, favour, or variety, and scarce any riches ; sole artificer of his own good, having none about him but

his relations, or a small number of domestics, who, being his equals, think like him, and live with him, have the same will as himself, or at least submit their will to all his wants, is not the victim of any of those destructive passions. If he at any time experiences them, they are much weaker, and much more easy to pacify; his sensibility being less, he is less forcibly affected: the loss of persons to him the most dear, scarce touches him; that of his effects, not much more, because poverty itself would hardly alter his manner of living: besides, he is never sensible but to the present, while the affluent dreads the future—his imagination disordered by the agitation of his nerves, fills him every moment, with the vapours. Numbers of ladies are under an impossibility of being well, without mentioning other causes, by the continual succession of their fears, which every instant throws them into a violent situation, absolutely disorders the whole animal œconomy; they scream out, if the least irregularity of the ground causes their coach to lean more on the one side than the other; while the labourer going before the brilliant equipage, will almost suffer it to run over him before he turns his head, or thinks of stepping aside to avoid it.

S E C T. 25.

This great sensibility occasions people of rank to be the victims of their most laudable feelings; all that afflicts or threatens others, all the evils incident to mankind in general, or merit in particular, are to them real grievances, affecting them very frequently, more than their own private complaints, and essentially destroy their health; in a word, infinitely more sensible of
tender

tender impressions *, and exposed to a much greater number than the peasant, of necessity they must suffer much more.

* Our author has taken notice of the pleasures of love under the article of secretions, but I cannot help thinking he might have taken in the pangs of unsuccessful disappointed love under this head of passions of the mind : and in this respect, the peasant will be found to enjoy many advantages which the subjects of this dissertation want : People, according to their rank, educate their children and accustom them to a corresponding manner of life, to keep up this rank ; and to show away in the same line in which they have been educated, it is necessary to look for proper matches for them, which is only judged in the present age by weight of purse ; and young people have sometimes no alternative, but with a heart already pre-engaged, to marry another one they hate, or starve. Family-pride as well as avarice is productive of many disappointments of this kind, to which the peasant is very little exposed : For a beautiful description of this passion, see Sauvages Nosologia Methodica, vol. II. page 252, quarto edition.—For the effects of the other passions on the human body, as causes of disease, the reader may consult that elegant compendium of medicine, Home's Principia Medicinæ, page 14, de Causis Morborum remotis.

A R T I C L E VI.

Of SLEEP and WATCHING.

S E C T. 26.

OUR slumbers are chiefly affected by the influence of the passions; the length of our sleep, its regularity and tranquillity are the strongest appendages of health. If, in this respect, we draw a parallel between the rich and brilliant inhabitants of cities, and those of the country, we shall find all the advantages in favour of the latter. The hour when he retires to rest, which is that designed by nature, obviously marked for the repose of all animals, and the disposition he is in when he resigns himself up to it, renders it impossible that the sleep of the one should resemble that of the others. The peasant whose nerves are not agitated by any affection of the soul, or blood inflamed, or stomach labouring with the effects of an erroneous regimen, lays himself down and sleeps; his slumbers are tranquil and profound; it is difficult to wake him, but the moment his spirits are recruited, he awakes; he is perfectly easy, fresh, strong and light. The man of fashion, disturbed by business, projects, pleasures, disappointments, and the regrets of
the

the day, heated by food and drinks, goes to bed with trembling nerves, agitated pulse, a stomach labouring with the load and acrimony of his food, the vessels full of juices which inflame them, indisposition, anxiety, the fever accompanies him to bed, and for a long time keeps him waking; if he shuts his eyes, his slumbers are short, uneasy, agitating, troubled with frightful dreams, and sudden startings; instead of the labourer's morning briskness, he wakes with palpitations, feverish, languid, dry, his mouth out of order, his urine hot, low spirited, heavy, ill tempered, his strength impaired, his nerves irritated and lax, his blood thick and inflamed; every night reduces his health, and fortifies the seed of some disease *.

* Our ingenious author has entirely omitted the fashionable custom of turning night into day, and day into night, by which the votaries of chance and wine are deprived of all the advantages mentioned § 16: I have known people accustomed to a regular life in the country, and of a good constitution, so much the worse of one fashionable winter in town, that it required their native air and proper regimen to reinstate them in their former health.

A R T I C L E VII.

Of SECRETIONS and EXCRETIONS.

S E C T. 27.

THE secretions and excretions, or in plain terms, the separations and evacuations, are very important functions in the animal system. Secretion consists in the separation of certain particular humours in the organs intended for that purpose, from whence they are conveyed into other parts where they are useful. Hence it is that the separation of the saliva or spittle is performed in the glands that surround the mouth, and then carried into the stomach; that of the bile is performed in the liver, and repairs to the intestines.

Excretions are those evacuations which carry out of the body the superfluity of the aliments, those parts which cannot be assimilated, or become part of ourselves, and are called excrements; perspiration, urine, and stools, are the principal; they are the best performed when food is simple, the manner of living sober and regular, the sleep tranquil, the air we breathe pure, the body exercised, when we are but little disturbed by the passions. Hence it is easy to comprehend how these functions are better performed with the peasant than the man of fashion.

Sharp foods, heating drinks, inflaming spices, absolutely disorder the secretion of the humour termed gastric juice, which if separated in the
stomach

stomach to forward digestion, thicken and harden the bile itself, obstruct and influence its channels, cause costiveness, maintain a degree of fever; all the secretions and evacuations are disordered. Idleness *, though it operates differently, produces at length almost the same effects: But it is certain that it is the passions which absolutely disorder the functions of these two classes, grief, weariness, anxiety, envy, destroy, as hath been said, digestion, and the offices of the bile; and when those functions are disordered, the basis of the animal œconomy is reversed, sleep disappears, health declines, and the door is opened to all chronical diseases.

S E C T. 28.

We may range under the article of secretions the pleasures of love; and here all the advantages remain with the son of nature: brought up under the eyes of his father and mother, accustomed to continual action, unknown to the anxiety of idleness, sheltered from dangerous discourses, far from alluring objects, he feels no desires till arrived at maturity; when excess of health awakens in him a sensation which nature hath given even to the brutes, to stimulate him to propagate his likeness as soon as he hath acquired maturity: his desires have not that impetuosity, which is oftener the effect of imagination than necessity—he wants opportunities—hence the pleasure with him goes no farther than what nature requires †, and he

* See our author on the Diseases of Sedentary People.

† If the contrary sometimes happens, as I have known it, it is chiefly with young married men of a delicate constitution, or whose wives are more vigorous than they; they soon run themselves out, and fall into a declining state of health, with cough and fever, which often ends in a consumption.

T.

encreases his health even while he exhausts it : but with the youth of the town, who finds himself in circumstances absolutely different, debauchery advancing age by force, is the general cause of his diseases, and of his perishing in the flower of his age.

S E C T. 29.

Dress, designed to favour perspiration, is among people of fashion one cause of the badness of their health, and is detrimental many ways.

In the first place, it has commonly the effect of a bandage, which, if it is not general, acts at least upon the principal vessels ; narrow shoes to confine the feet, bandages under the hams, at the lower belly, at the arm pits, at the neck, at the wrists, at every part where the circulation of the blood ought to be free.

We know how destructive stays are both to shape and health *. The stomach and intestines always confined, and constantly constrained in the performance of their offices, engenders diseases, digestion is lost, the bowels clogged, the humours disordered, the symptoms end in the green sickness and corrupted humours, the acids prevail, nutrition ceases ; the bones grow weak, and are often put out of form, from the age of ten to eighteen. So that the very means designed to make fine shapes, are the causes of deformity.

Another inconvenience attending fashionable dress, is, that those parts which require the most covering, have the least : The ladies have their

* Vide Comparative View of the State and Faculties of Man, page 36.

breast and neck covered, or quite bare, alternately ; the men always closely invested, admit no air to enter but precisely at the middle of the breast. Each the most certain method to endanger those essential parts. The peasant is never confined, but always buttoned ; his wife and children know not the use of stays, and their breast is covered at all times alike.

S E C T. 30.

The pores of the head always shut by a fat and meally gum, sometimes those of the face *

* One should reasonably imagine, that the many melancholy instances we have of the fatal effects of painting the face and neck, would effectually deter the fair-sex from the continuing so detestable a practice ; if they have no regard for their health, which is thereby visibly impaired, they ought at least to consider their beauty, which, while they think to improve, they in reality injure in so far, that when once a lady has used paint for any time, she is obliged to continue it, from the injury her skin and colour have sustained, as she will visibly perceive on consulting her glass in the morning before her complexion is repaired for the day.

The injuries arising to the health from this practice may be considered under two heads, as arising from obstructed perspiration, which must be the consequence, if the pores of the skin are filled up with such compositions as are commonly used ; and 2dly, as arising from the introduction of noxious particles into the body ; most of the beautifying lotions, whatever may be advertised to the contrary, have mercury in their composition, and it is a certain fact universally known, that mercury applied to the surface of the body is as effectual in raising a salivation as when taken by the mouth : There have been instances where mercurial applications to remove blemishes from the face, have produced a salivation and all its disagreeable consequences : loose and spoilt teeth, rotten gums, and offensive breath. 'Tis true, our fair country-women are as yet strangers to this in comparison with those of other nations ; but though they are the most inexcusable of any, on account of their naturally good skins and complexions, yet they are fast following the example of their neighbours, and if they go on, will soon lose that native beauty and innocence which has hitherto distinguished them from others :—but I would hope the contrary.

by pomatum filled with pernicious particles, of which M. *Des Hayes* hath made the dangers known, are again the cause of damage by preventing perspiration, which being retained, flies to the neighbouring organs, and produces a variety of maladies *.

The head unequally covered, sometimes much, sometimes not at all, is dangerous; the smallest causes greatly affecting people of great sensibility and delicacy.

The frequent use of fans is even dangerous, it is long since an able physician asserted, that in stopping the perspiration of the face, they render the head hot, and heavy †. I think it the occasion of so many bad eyes, sore noses, teeth-achs, and pimply eruptions.

SECT. 31.

Secretion of milk is another cause of disorder among ladies of fashion: when they do not suckle their offspring, the milk overflows, and causes infinite complaints, very grievous and hard to conquer ‡; among which is one extremely dreadful, because it immediately im-

* Vid. § 7.

† *Plempius de togator. Valetudin.* page 34. T.

‡ “A woman in this case,” says a very ingenious author, “runs an immediate risk of her life by a milky fever, besides the danger of swelling and imposthumes of the breasts, and such obstructions in them as lay the foundation of a future cancer,” *Comparative View*, page 26. And again “another great inconveniency attending the neglect of nursing, is, the depriving women of that interval of respite and ease which nature intended for them betwixt child-bearing; a woman who does not nurse, has naturally a child every year, this quickly exhausts the constitution, and brings on the infirmities of old age before their time, and as this neglect is most frequent among women of fashion, the delicacy of their constitutions is particularly unable to sustain such a violence to nature.” Page 27.

pedes population, and which none have mentioned before; it is a species of palsy in the uterus, followed by a fluor albus which renders them insensible to the pleasures, and unfit for the purposes of generation. In the same manner flowing upon the intestines, it sometimes occasions a *diarrhœa* without being felt. If they suckle without the attention requisite in this new situation, they are exhausted, and fall into a disorder of the nerves.

SECT. 32.

The abuse of tobacco for some years past, is no more an error confined to the great, it appertains equally to all orders; it is at present more used in the anti-chamber than in the parlour, and much more so in paltry public houses, than in convivial assemblies of the great *. But the use of perfumes, as well in powders as liquids, is a branch of luxury of the toilets only, attended with very bad consequences, in continually irritating the nervous system, and that so forcibly in some persons, that it weakens them exceedingly, if they are obliged to sustain it long. There are those of the muscadine kind which produce this effect with more certainty than the others: but all, let them be what they will, are truly pernicious, and should be absolutely banished. Offensive smells alone should be perfumed, says *Martial*, sixteen hundred years ago. I don't know if he reformed the citizens of Rome, but if the abuse then ceased, it has revived considerably. A good

* For Mr. Tiffot's sentiments on this head, I shall refer the reader to § 77 and 78 of his treatise on the Diseases of Sedentary People.

reason why the custom should be abandoned by all such as have good constitutions, is, that it is useful only to such as are disgraced by nature, and who are obliged to conceal, with perfumes, the disagreeable odours with which they have the misfortune to be infected.

ARTICLE

A R T I C L E VIII.

DISORDERS most frequent in People of Fashion.

S E C T. 33.

I HAVE in haste gone through the principal differences observable between the man of fashion and the labourer's manner of living, but shall particularly point out the diseases generally resulting from the continuation of those causes. I must premise that those causes having once acted upon a first generation, their children are weaker than themselves, and luxury and effeminacy having presided over their education, those seeds of evil which were born with them are daily augmented; the progeny are therefore still weaker than the parents, and the evil is progressive from age to age. There is a country where the courtiers are known by the meanness of their shape.

Our fathers, less strong than our grandfathers
were,

Are succeeded by us who are weaker by far.

S E C T. 34.

If the education of the man of fashion was the same as the labourer's, if his strength was an

object of care from his infancy, he would be better able on his entrance into the world to sustain the shocks he must try ; but through a shameful abuse they begin to ruin his health the moment he sees the light * : so there remains but little to make him effectually lose it, when there is an opportunity, and he is soon exposed to infirmities, the consequence of a life of luxury and dissipation, of which the chief effects are generally a total loss of digestion, an universal disorder of the nerves, with all the concomitant maladies, obstructions, a sharp principle in the humours, and an habitual disposition to be feverish from these general effects, operating upon the different organs, many diseases proceed. I shall briefly mention the chief and most common.

SECT. 35.

The first, though not one of the most dangerous, but of the most inconvenient, is that sensibility to every impression of the atmosphere which makes its least sensible changes troublesome. The weak man in the remotest part of his alcove imagines the north wind rages ; want of sleep, a general uneasiness, and universal anxiety seize him ; while his husbandman, who hath already been several hours in the open air, is at a loss to guess what is the matter with him : fogs give him the vapours, rainy weather oppresses him, takes away his appetite, enervates and makes him miserable ; cold weather makes him cough, gives him the cholic, and causes him to spit blood. In women it occasions ob-

* The reader will find a very elegant and full illustration of what is only hinted at here, by consulting the Comparative View, § 1.

structions,

structions, renders them irascible, passionate, and irksome to themselves. We call to mind that the chancellor *de Chiverni* predicted to the president *de Thou*, that if the Duke of *Guise* provoked the spirit of *Henry III.* during the frost, which rendered him almost furious, he would dispatch him without the form of law.

M. Boyle hath preserved the history of a lady of the court of London, whose sensations were so fine that she could at once judge if those who came to her had passed through any place where there had been any quantity of snow. In approaching her they caused her to suffer; her nerves were affected by the few nitrous particles with which their cloaths might be tinged, and which the heat of the room causes to evaporate and fly to any thing near. An observation which proves what the author of a very interesting new work has attempted to establish: that is, that the particles with which the air abounds in its different changes, greatly contribute to what valetudinarians suffer at those various times *.

Mental delicacy is sometimes not less predominant, and I have often seen a woman of wit and sense but too susceptible of such sensations—who could not bear people to come near her whose countenances did not please her, without feeling herself remarkably uneasy, which had a great influence on her pulse.

SECT. 36.

Head-achs are a disease too common among people of fashion; they are in general the con-

* Mr. l'Abbé Richard, *histoire naturelle de l'air & des mteores.*

sequence of some disorder in the stomach or nerves, often of both : it is a disorder the more grievous, as, besides its violence, which is sometimes excessive if it often happens, and the intervals between the fits are but short, it renders the whole nervous system so unfortunately delicate as to admit of hardly any relief : and in fine, after having endured it many years, if it should be displaced, it exposes them to disorders more grievous than the most cruel headaches themselves.

I have seen palsies, convulsions, asthmas, pains in the stomach, and strong dysenteries succeed the disappearing of this complaint.

S E C T. 37.

A great tenderness in the eyes, pains in the bottom of the ball, an impossibility of opening them in the morning ; a light gum on the eyelids, a too great facility in shedding tears ; an inability to read long, or do any other trying business, are likewise the consequences of that principle of heat and sensibility that are always found under various forms among those persons whose constitutions I am at present considering, and are perhaps encreased by the great light of their chambers, by the glasses and their reflections, and by the smoke of a number of wax lights.

S E C T. 38.

Another effect less considerable in itself, if we are not attentive to it, but a source of evils by the uneasiness it gives, or by means of the
remedies

remedies taken to get rid of it, are the pimples which come in the face.

They are caused by that sharp principle in the humours, and that irregularity in perspiration, which are the appendages of persons of this class. It is this two-fold principle which likewise hatches those multitudes of tetters, not only in the face but all over the body, which are more common with persons in high life than others.

S E C T. 39.

The itch, which is most commonly a contagious disorder dispersed by want of neatness, is frequent among the lower class of people and mechanics, but rarely found with the opulent: but tetters, least known among the poor, whose blood is naturally sweet, and who have the itch only by infection, are frequent with people of a higher class, but who carry in their blood, overloaded with sharp humours, a principle of eruptive diseases, always ready to manifest itself in different appearances, which sometimes flies back from the skin to the internal organs: at other times it encroaches upon the internal organs without being first externally obvious, producing pains in the head, coughs, asthmas, convulsions, reachings, cholics, diarrhœas. and a number of other diseases, oftentimes badly treated, because their real causes are not attended to.

The Gout *.

SECT 40.

The sharp gouty humour, the fruit of bad digestions, irregular perspirations, and often of inflamed blood, is another of those diseases peculiar to such as eat at the table of voluptuousness *, indulge in the pleasures of love, late hours, inactivity, the passions, and strong contentions of spirit and which is almost absolutely unknown to the rustics.

Unhappily it passes from the parents who have deserved it to their innocent offspring, and when it is once established, it is difficult to eradicate.

When it is regular, from time to time it causes pains so intolerably acute, that we regret ever having done any thing to give them birth : but the greatest evil of which it is productive, is when it cannot fix itself, or when it shifts about, in either case, by wandering in the mass of humours, inflaming successively different interior or exterior parts ; it alternately produces pains, convulsions, palsies, anguish, fevers, cholics, obstructions, the stone, swellings, continual uneasiness, an habitual weakness of the legs, a privation of health, and consequently of all other pleasures : We cannot indeed taste any when we no longer enjoy that sensation of health, which is the first in itself, and the foundation of all other pleasures.

* Vide Dr. Cadogan on the Gout.

Disorders of the LUNGS.

S E C T. 4th.

The Lungs are those organs which suffer the most from that sharp and inflammatory disposition of the mass of blood. The humour which continually exhales from them, is the same as that which perspires through the skin, the same acrimonious principle which is found in the latter, and occasions the disorders mentioned in §. 38, 39, inflames the interior membrane of the lungs, producing more grievous effects, because their seat is in much more important organs. Here are engendered coughs, oppressions, asthmas, and heats of the breast: If the external perspiration happens to be stopt, and flows back upon the lungs, it is what is called a catarrh, or rheum, which equally attacks the interior parts of the nostrils, the throat and the breast, and which often produces a real inflammation.

But of all the disorders of which the kind of life I mention is productive in the lungs, one of the most common and most dangerous is, the tubercle; a name given to those small tumours, from the bigness of a pimple to that of a small nut, more or less hard, which are produc'd in the lungs; at first small, and few in number, but become larger and more numerous: Farther on I shall give their history, more fully: It sufficeth to say in this place, they are rare among the lower class of people, and one of the most common causes of consumptions in people of fashion Juicy viands, strong wines,

wines, or spirituous liquors, and incontinency, are three causes, which never fail to produce them when the lungs are weak. We find consumptions in the peasant as well as in people of fashion ; but in him they are the consequence of the bad treatment of an inflammation in the breast, or of a catarrh too much neglected.

Disorders of the STOMACH and BOWELS.

SECT. 42.

If we pass from the organs which are contained in the breast, to those enclosed in the lower belly. the stomach presents itself first, whose functions are the most disordered by that kind of life which characterises *good company* ; loathing, irregular appetite, a mouth out of order, sickness at heart, heart-burn, cramps or convulsions in the stomach, habitual reachings, thirst, drought of the throat, are disorders hardly known in the country, and which torment the citizen in proportion to his fashionable pleasures, his sensuality and luxury ; while the husbandman eating daily near the same quantity, the same kind of food, and at the same hours, never feels any disorder at his stomach.

SECT. 43.

The actions of the intestines are, and must be, as much disordered as those of the stomach : a frequent uneasiness in the bowels, costiveness, dryness, continual windiness, habitual cholics, and,

and, above all, the hæmorrhoids, disorders as uncommon in the country as frequent in town, are the symptoms of which the persons spoken of daily complain, and which conducts them by degrees to others more terrible.

OBSTRUCTIONS.

SECT. 44.

The other most common disorders are, stoppages in the different intestines; above all, of the liver, and mesentery, which are necessarily produced by too sedentary a life and the passions, which directly incommode the secretions; and above all, the gall, which stagnates in its channels, grows thick, and even becomes hard, stopping them intirely, and sometimes becomes real stones, which are more frequently found in the gall-bladder than in the liver, causing those tormenting bilious cholics, dependant on the difficulty which these stones have to pass from the gall-bladder into the bowels and which, if the cause is not destroyed, renders life extremely miserable, bringing on a dangerous jaundice, and terminating in an incurable dropsy, which very much shortens existence.

Of all the stoppages of the lower belly, that of the liver, and above all, that of its small or superior lobe, are the most frequent: But it appears to me, that that of the pylorus (the passage from the stomach to the intestines) and of the mesentery, are become more common than formerly, the natural consequence of the encrease of disorders in digestion. Nerves continually
agitated,

agitated, affect the order of circulation; and the frequent swellings of the intestines, by compressing the vessels, and often forcing the humours to stagnate, produce the same effect.

These stoppages, joined to the sharpness of the humours, give birth to these small fevers which so often visit delicate persons, which cease for a time, by dieting and light evacuations, and afterwards yield no more, but insensibly destroy the patient.

The S T O N E.

S E C T. 45.

The Stone in the bladder, is a disease rather peculiar to certain countries than certain orders of men, and I believe not more frequent among the rich than the poor, the gouty excepted, who are much less subject to the stone than to the gravel, by which they are tormented perhaps for several years, without its forming into large stones.

S E C T 46.

These are the diseases which commonly attack the different parts; but there is another still more common, more peculiar to people of fashion, more evidently the effect of their manners, their passions, their regimen, and their manner of living, which is the

Disorders of the NERVES.

Bad digestions, the imperfect nutrition which attends them, inactivity which prejudices all the secretions, are the causes that the matter of the animal spirits is not sufficiently worked ; watchings, irregular perspiration, the sharpness of aliments render them acrid, the functions of all the vessels being badly executed, agitate them, the continual whirl of the passions confuse them incessantly : It is therefore not at all surprising that their functions are not well performed, that their courses are irregular, and that from thence arises that innumerable collection of disorders, that vary in every subject, that vary from day to day in the same subject, and whose variations are undoubtedly not infinite, but certainly indefinite. To count them, we must take the number of the different parts of the body which have nerves, and which are considerable enough, on being injured, to produce a sensible effect, and calculate of how many combinations the number is susceptible ; the number which results from the operation, is the possible number. I do not say of the diseases of the nerves, which may be reduced to a small number of classes, but of nervous symptoms : Those classes are, the palsy, or the cessation of action, spasms, or an action too strong and lasting on the same part ; mobility, or too great facility of passing from a too violent action, to one which is too weak ; or so strong a sensibility, that the re-action of the nerves is always more than proportionate to the action of the impressions : It

is the symptoms of this last class which are the most frequent, and which renders miserable the lives of many men, on whom fortune smiles, and who are only miserable because they find in their nerves an insurmountable obstacle to happiness; the slightest impression is to them a lively sensation; what their neighbours do not even perceive, strongly affects them; that which is slightly disagreeable to others, is to them excessively painful; with regard to their mind, whatever does not soothe is excruciating; an unpleasant idea gives them despair, and not being able to drive it away, it incessantly rises on the mind, and renders them continually miserable; whatever does not immediately tend to make them happy, is a cause of sorrow; by the same rule, all who are about them give them pain, and they give pain to all about them; true felicity flies from them, and their hopes ever to enjoy it are but small; their wishes and desires have the same instability as their nerves; the objects of their imagination, of their appetites, of their passions, vary sometimes every minute; fearing every thing, enjoying nothing with tranquillity; their life passes in fears and desires, without any quiet possession; while the happy husbandman wishes for little, enjoys it quietly, and never fears any thing.

S E C T. 47.

Besides the diseases of which I have spoken, and which may attack either sex without distinction, the mode of life in question renders ladies of fashion more particularly subject to some, which are much less common in the country. I shall here mention only four, the
irregularity

irregularity of the terms, miscarriages, the bad consequences of miscarriages, and the white evacuations.

Irregular TERMS.

SECT. 48.

That species of the green sickness derived from the terms finding difficulty to establish themselves, is common enough in the country. We often see girls of eighteen or twenty years of age, who yet are without terms; there are natural reasons peculiar to them: It is not the same with persons who reside in cities, and live a modish life, the courses appear, and the young girls are mature much sooner than in the country, sometimes much too soon*; for those early terms contribute oftentimes to weaken them for life, and sow the seeds of all languishing disorders, which are adduced from fibres too relaxed; the vessels do not acquire the strength they ought to have, and thereby the functions are never perfectly performed. But if with the country people the terms take place later, they operate more regularly; the uniformity of their lives establish, in this respect, the best order, and that order contributes greatly to their health. It is not the same thing with ladies of fashion, of whom many are subject

* There have been instances even in this country, of girls, of ten, nine, and even under seven years of age, who have had their monthly evacuations: but most of them, though seeming to enjoy good health, and married to healthy husbands, have continued either altogether barren, or what is nearly the same, never brought their fruit to perfection.

to the most irregular menses, and above all, of frequent stoppages without any apparent cause; sometimes the suppression continues for two or three months; sometimes the returns are regular, but the quantity is sensibly diminished. With others, on the contrary, the returns are too frequent, or the evacuations too copious; and all these cases naturally proceed from the manner of living, and, above all, from the passions; always conducive of uneasiness, lassitude, faintness, pains in the head, and obstructions.

S E C T. 49.

Not only the menses are more irregular with persons in high life, but they find them more troublesome; and it is common to find in young persons of this class those violent cholics which precede each appearance of the terms, and which sometimes turn to convulsions, which are rarely experienced by those who reside in the country, and to whom this period is not a time of uneasiness as with the others. We may therefore rank these menstrual cholics among the diseases of ladies of fashion; they are likewise more exposed to them, their mode of living subjecting them to obstructions and disorders of the nerves.

MISCARRIAGES.

S E C T. 50.

That weakness in the fibres of the uterus, which renders the evacuations so irregular
must

must necessarily conduce to miscarriages, for two reasons; the first is, that the adherence of the after birth is much weaker, because the power of adhesion between similar bodies, is proportionate to their degree of density; the separation is therefore much easier *. The second is, the approach of the blood, so very irregularly made, is sometimes so considerable, that it produces an hæmorrhage, of which a miscarriage is almost always the consequence—at other times it is so scarce that it is hardly sufficient to nourish the child, who pines away. The secundines share the same fate, and a separation necessarily succeeds. We may add a third: the mobility of the nerves of women of fashion, as I have said, renders them susceptible of fright; and frights are of all others the most frequent causes of abortion. We may perceive from this single cause, how much more scarce it must be among the country people who fear nothing, than among ladies who fear every thing; which weakness hath occasioned, and daily occasions, many great families to be extinct.

Frequent miscarriages greatly enfeeble women, because they are generally accompanied by copious floodings, which exhaust very much; and what most to be lamented is, that the first often paves the way for a second, and that again for a third. I have seen a woman who

* Our author has already observed, that women of fashion are subject to too copious evacuations and too frequent returns, hence the determination of the blood to the womb, in less than a fortnight, perhaps after conception, forces off the ovum before the after-birth can have acquired such a degree of adhesion as to resist its impetus: and indeed if we observe such miscarriages as do not happen in consequence of external violence, we will find most of them to take place at the time when nature makes an effort to restore customary evacuations.

miscarried twelve times at three months and never could go beyond that time.

The Consequences of LABOURS.

SECT. 51.

If miscarriages kill a great number of children in the most considerable houses, bad labours kill many mothers, or at least throw them into languishing disorders, which greatly abridge their days, and make them barren after a first conception.

These bad labours are commonly rendered so by a complication of a putrid fever, an inflammation of the uterus, diffusion of the milk, and disordered nerves, which are infinitely more rare in the country. where this concurrence of causes is not found, and where it is common to see women who have had a great number of children, without ever having been even obliged to take an ounce of manna: and if we read many dissertations concerning the health of women of fashion, we shall too often perceive the origin of their complaints proceed from a miscarriage or from a bad labour *. Those periods give a blow to their constitution which they cannot remedy.

* Among other errors which were formerly productive of much mischief to in-lying women, we may reckon as not the least, the hot stimulating cordials given to promote delivery, and even afterwards to bring out a copious sweat, in which the poor woman was kept for at least nine days: this practice is much dropt at present, and the recovery of in-lying women is both quicker and more perfect than before.

S E C T. 52.

Among the bad consequences of frequent labours, we much reckon the ravages made by the overflowing of the milk, a disorder formerly so uncommon, that it is scarcely mentioned by authors who wrote forty years ago; but it is so common in cities at present, that it is become one of the principal objects of those, who since then, have treated of the disorders incident to women *. Without them we have nevertheless arrived at an explanation of its causes and phænomena in a satisfactory manner.

The change which pregnancy causes in the uterus, influences the whole machine, but principally the breasts: they become tender, painful, swelled, hard with the milk; sometimes in the first weeks of pregnancy, and at the end of that period, it is uncommon if there is not a certain quantity.

The second, most commonly the third, sometimes only the seventh or eighth day after delivery, it comes in greater abundance: and this operation is sufficiently troublesome to occasion a fever, sometimes very violent; and which, complicating with other causes, may become dangerous. If the milk deposited in the breasts is drawn out as often as full by the infant for whom nature designed it, it continues to abound, and nothing is to be feared from those disorders. It may flow during several years, and the only danger to which it exposes any person is exhausting them. The milk is formed of the chyle, and preserves the greatest part of what characterizes

* Levret l'art des accouchement, M. de la Motte, Astruc, Puzoz. &c.

it; therefore the nourishment of the child is taken from that of the mother, and if she has not a good appetite while she nourishes, she must of necessity be exhausted, which happens every day, and throws many women into a languid state and a disorder of the nerves.

But if the milk, which sometimes appears to form in the vessels before it is carried to the breasts, is not deposited there, or after it is, if it returns to the mass of humours, it operates like a strange body, which is incapable of assimilating with the blood *; it acts like any other irri-

* *Incapable of assimilating with the blood.*] The general diffusion of the milk, its determination to particular organs (*depôts lacteux*,) and large milky evacuations without it having ever appeared in the breasts, would lead one to imagine that pregnancy produced such a change on the vessels, as enabled them to convert the chyle into milk without the intervention of the breasts. To explain this action will be difficult, perhaps even impossible, but that is not a sufficient cause for our rejecting it: may not we conjecture, and that too with some degree of probability, that tho' the milk was not observed in the breasts, yet in reality it existed there, though in small quantity; but not making its way by the proper excretories, it returned into the vessels, where acting upon that part of the mass to which it bore the greatest analogy, viz the chyle, this by assimilation it rendered perfect milk: the first chyle, now transformed to milk, acts upon the next, and thus the greatest part of the chyle is so changed as to become milk without ever having been carried to the breast. This explains very well all the disorders produced by milk in women who never had the appearance of having any, which is not a rare case; those disorders frequently being of a most dangerous nature.

There are a good number of very curious experiments to be made upon this head; first, to fix and determine exactly the characters of milk and chyle, the resemblances between which have been given, but not the differences; secondly, to know the effects of milk injected into the vessels; one may this way produce artificial diffusions of milk and observe the effects proceeding therefrom: perhaps we should see milk fevers, excrementitious evacuations of the same kind, deposits of milk, suppurations, convulsions, palsies, rottenness of the bones, luxations, and all the dreadful train of symptoms which sometimes attend in-lying women.

T.

tating

tating matter, and sometimes produces a violent fever; other times it is more moderate, but never entirely ceases, until the blood hath got rid of this humour with which it cannot be allied, and which appears to act like a weak acid injection.

S E C T. 53.

We may range under three classes the effects of this kind of milk thus diffused; either it remains in the vessels; or it evacuates itself by some natural strainer; or, lastly, it fixes itself upon some internal or external part.

When it remains in the vessels it causes a continual fever, which becomes an hectic fever, commonly accompanied by a husking cough, and a dryness of the skin, much greater than is generally found in other hectic fevers, destroying all the functions, and leading to death.

S E C T. 54.

The ways by which the milk is most commonly evacuated, are the uterus, stools and urine.

We often find that when the red discharges diminish they are replaced by those which are white and absolutely milky, which I mentioned before, § 31. as one of the dangers; another more frequent is, when they leave the common white evacuations.

S E C T. 55.

The second way by which the milk retires is the intestines. There is no physician or midwife, who has not frequently seen in labours, stools,

stools actually milky ; sometimes the milk seems in good condition, at other times a little changed.

I have seen seventy seven stools in twenty-four hours, which appeared to be absolutely nothing but milk, the whole of which might amount to twenty four or twenty five pints * ; the odour which exhaled from them was exactly like that of sour milk ; the following days this large evacuation, which prodigiously weakened the patient, and would have killed her if it had continued with the same violence, very considerably diminished, but remained nevertheless above six weeks ; and I have seen them often when less copious, continue much longer.

SECT. 56.

The urine is a third way by which the milk is evacuated oftentimes very abundantly : I have seen women who have continued to pass it from time to time in this manner, above six months after their labour, and it is this way which weakens them the least and is the least dangerous.

SECT. 57.

It is more uncommon for the milk to evacuate by reaching than by stools : I have, nevertheless, sometimes known it come in this way ; and twice these puckings were the salutary crisis which drew the patient from the gates of death.

* *Pints.*] The French pint contains two lb. of liquids, and is equal to the Scots chopin or two English pints.

S E C T. 58.

The milk does not perspire under its natural form as it comes from the uterus, with stools, urine, and vomits ; but sweating is nevertheless one of those evacuations by which it is frequently dissipated ; at first, it is certain a copious perspiration, at the end of a milk fever, is what may shelter the person afflicted, from the ravages caused by the milk, more than any thing else ; and this sweat, which comes on the first day of the labour, sensibly diminishes the fever, so far indeed, that it partly removes the cause : the truth of which, the smell and situation of the sheets will not permit us to doubt ; they often acquire, in drying, a redness, which evidently proves that they are tinged with a thicker humour than the simple common sweat.

S E C T. 59.

Sometimes the milk is carried back to the breasts, which is the most favourable crisis. I have seen them full in about seven weeks, plentifully flowing, and all the accidents which the patient felt were thereby dissipated. It has even returned after several months ; and I have under my care, women in whom this alternate flowing of the milk, to and from the breasts, and this languor, is maintained during a long time.

S E C T. 60.

After these first periods of the labour are past, it sometimes happens that when they have begun

begun to diminish this hectic milk fever, of which I spoke in § 54, (which is attended with so great a dryness) the skin moistens a little, and afterwards permits a sufficient perspiration, which is a favourable crisis, but never complete, and to whose assistance other aids must be called.

S E C T. 61.

Sometimes nature tries this crisis and it does not operate, but only carries the milk to the skin, which occasions those disorders called milky eruptions, that are disguised under different forms, and fix in different parts; sometimes like boils, which continually succeed each other, and other times like whitlows, which are a species of boils; sometimes like tetter or the itch, and other times like runnings more or less copious, watery, or purulent; and many other disorders which, whatever form they take, are often of very long continuance if not properly treated at first.

The disorder sometimes seems to sleep, the patient believes it cured, but at the end of a few weeks it appears again with additional vigour and under a new form. I was consulted by a woman, who in the space of three years had lost, at different times, many nails, and sometimes from the same finger with a great deal of pain; in calculating she found that she had lost and renewed twenty three.

S E C T. 62.

The third termination of the effusive milk, is what they properly call stagnated milk *, which

* Depots laiteux.

M. Puzoz, to whom we owe an excellent French work concerning labours, first mentioned, with a just attention, and in the most satisfactory manner. The vessels continually irritated by the milk, which seeks to disengage itself, as when it is infected by gouty humours, the small-pox the measles, the plague, &c. When the evacuation cannot be made by means of those strainers, of which I have spoken in the preceeding sections, it will deposite itself somewhere. As it often happens in an acute fever, nature deposite the irritating humour on some organ; and this deposition is good or bad according to the importance of the part on which it is made.

It is the same with the milky deposits. We have seen that if this effusion of milk does not separate from the mass of humours, it causes a fever productive of death; but if it deposite itself upon some essential organ, such as the brains or the lungs, as it sometimes happens in the first ten or twelve days of the lying-in, the patient dies speedily. After that period it seldom fixes upon those organs. It then fixes either in some part of the lower belly, and principally the pelvis, or outwardly, and oftener upon the under extremities than elsewhere. I have seen it fix itself upon the mesentery, upon the ovarium, frequently at the bend of the thigh, sometimes at its articulations, even in the intervals of the muscles of the thigh which I have seen three times bigger than the common size, attended with acute pains upon the legs, upon the fat which surrounds the breast, on the arms, &c.

S E C T. 63.

At the commencement of these lodgements or fixtues, the irritation being less general, the patient seems rather better, and the fever abates; but the obstruction soon causes pains more or less acute, sometimes atrocious, the deposit not being complete, or a part thereof repassing into the mass of the blood, again produces a fever to the full as strong, and often attended with more dangerous symptoms than the first, and the patient falls into that state which the most afflicting pains occasion, the functions impeded by the tumour, the nervous system disordered, fever, and new lodgements from a part of the reabsorbed humours being carried to different parts, cause the most alarming symptoms, and often the most uncommon, of which history presents a large detail, which does not belong to a work not designed for physicians, and of which the only end is to make known to the afflicted the disorders to which their manner of living exposes them.

S E C T. 64.

Those which I have described, the irregularity of the menses, the effects of bad labours, the overflowing of the milk, disorders as common among people of fashion as rare in the country, are evidently derived from those irregular secretions which we find are the effects of their manner of living; in that acrimonious principle and inflammatory disposition, which always exists in their blood; in that mass of hot substances which continually burns their entrails;

in that mobility of the nervous system which is always ready to incommode the functions and evacuations; and finally, in that continual fluctuation of the mind, which incessantly alters the state of the body, these are the causes which so often render those acute disorders of persons of this class so irregular, complicated, difficult and permanent.

SECT. 65.

The fluor albus is another disorder almost unknown to the peasant, but very common to women of rank *: their varieties, their numerous effects, and their different causes, does not come within my plan; I shall therefore confine myself to three general observations; one is, the almost continual lowness of spirits, weakness, melancholy disposition, frequent sensation of anguish at the pit of the stomach, weight and weakness at the reins, loathing, paleness, leanness and eyes cast down, are the common symptoms of this disorder. The next is, that it may be dependant on the most opposite causes; that if it continues for any long time, it entirely ruins the health, and commonly produces all the disorders of the nerves. In fine, if not timely remedied, it becomes very difficult to eradicate it. The third is, that of all the disorders mentioned, it is this which is the most certain and most constant effect of that inflaming and customary mode of life, of which I have so often made the dangers known.

* Mr. Malouin observes, that this disorder is more frequent in Paris than any where else.

A R T I C L E IX.

R E M E D I E S.

S E C T. 66.

AN infirm state of health very opposite to that of happiness, which renders life miserable, and shortens its duration, which makes all uneasy who are about us, destroys population, and infects the rising generation with the seeds of languor and diseases, is undoubtedly an object very worthy the attention of physicians; but such attention solely will be found very inefficacious; it is not certain receipts which can remove the evil, but the concurrence of the patient is here of the utmost necessity; he must be sensible of his situation, and willing to be cured, and his will must be sufficiently strong to determine him to renounce the causes of his disorder, by changing his mode of life; but that the proposition may not alarm, and shock too much, I do not pretend to propose a reformation now become impossible, and which would consequently be ridiculous.

I do not invite any to exist like the savages, who, for the generality, deliver themselves up to an indolent stupidity, and scarce ever leave home, but to seek provisions or satisfy resentment; living after the manner of brutes, rather

ther than reasonable beings ; and are far from resembling those imaginary portraits drawn by romantic, and perhaps misanthropical travellers ; which are intended rather to humble the civilized, than exalt the savage. Or they perhaps thought to acquire a greater degree of importance, by raising the merits of those among whom they lived, or finally, who mistook for a national character, some peculiar beauties which could prove nothing in favour of the generality.

Neither do I mean to call the polite to the life of a labourer, though I believe the labourer is happier in that life than the man of fashion in his mode of living. But two very enchanting classes of pleasure, those which have their source in the cultivation of the mind, and sentimental exercises, are almost lost to him, which powerfully concur to encrease the felicity of the man who enjoys them. If therefore, the man of fashion, who can procure them, is less happy than the villager, it is his own fault ; for naturally he must have the advantage. But he is so unlucky, that in rearing the edifice of his fashionable pleasures, he lays the foundation of his pains.

S E C T. 67.

The first change which we can propose for the amendment of his constitution, should therefore be an attention to those two classes of enjoyment which are in his power, and which ought to be the objects of such as have the care of his education ; the great end of which is to make known to man the true sources of his happiness, and the ways conducive to it.

Great qualifications, great virtues, agreeable

society, the charms of wit, and beauty, in the natural order of things, are found with the best educated. But talents, virtues, agreeable qualifications, and shining charms, are all destroyed by a bad state of health.

“ All he may claim, and boast the art to please,
“ But nought enjoys, while tortur’d by disease.”

M. de VOLTAIRE.

Reason itself is often rendered useless by a bad constitution.

Oh ! say, can reason rule a weakly frame,
And the wild fury of disorder tame ;
Reason is like, thus aiming to control,
A skilful driver on his chariot’s pole,
Who drives a craz’d machine, without a brace,
Or wheel, to aid him in his lagging pace :
Or like a pilot, who a vessel guides
Without a rudder, through the foaming tides ;
For in affliction fancy cannot roam,
But chain’d by sickness, is confin’d to home.

Epistle to MONTULT.

Nerves continually agitated by humours, which are always irritative, by disordering the harmony of the organs, and enfeebling the body, murder the mental faculties ; which are so much dependant on the situation of its surrounding body, that whatever disorders the œconomy of the one, absolutely prejudices the mode of thinking in the other.

“ That bright’ning ray, by God himself bestow’d,
“ Blends with our senses, and like them grows weak.”

And this observation, confirmed by the experience of ages, gives to all the salutary law of
being

being carefully awake to the preservation of health; but this law acquires a greater degree of strength, in proportion as we fill up a more necessary station, and in which we believe ourselves to be of more importance.

S E C T. 68.

Another change upon which we must of necessity confine ourselves to a general definition, or enter into an endless detail, is to take away entirely, those things which shorten existence, without, in the least, encreasing happiness; to know precisely the pleasures of fashion, and fallacious custom; and to distinguish them from those pleasures which are real; not to risk being always subjected to actual inconveniencies, in order, for a moment, to avoid these which are trifling; and finally, to learn to reckon, and balance those imaginary pleasures which bear the name without being so, and in the flurry of which we cannot help yawning out, " 'tis very amusing." Pleasure enters into the eternal order of things, it exists invariably; to form it, there must be certain connective conditions in the object who enjoys, and him who bestows; those conditions are not arbitrary, nature hath pointed them out; the imagination disorders though it cannot create them, and the most sensual libertine cannot succeed better in augmenting his enjoyments, than by renouncing them to such as do not carry this mark of nature.

S E C T. 69.

I do not propose to a man who dwells in the middle of a city, (and if cities are evils, there
can

can be no conclusion drawn) who has too long a journey to make, ere he can breathe the air of the country, and who knows not how to employ himself there, to pass too much time in the country; but I would persuade him, that the open air is not so hurtful to him, as to oblige him to go out in a gently moving, and closely shut house. I would not have him believe that the pavement will wound his feet, that the common jolting of a carriage will do him a deal of harm, and that by going so very softly, he deprives himself of the only motion which the necessity of pursuing pleasure affords him.

First, in renouncing air and exercise, he ruins his health; but what is more, by seeking to dispense with whatever does not agreeable impress him, he gains nothing; for by that means, his sensibility continually encreases; the slightest impressions augment their strength in proportion; and now, have at last, as disagreeable an effect as the strongest had before; he begins to dread every thing, though he cannot avoid all; hence he becomes a pitious spectacle. Little causes much sooner affect a delicate constitution, than great ones do a strong: the more we aim to avoid the impression of those agents with which nature hath surrounded us, and to whose agency she hath thought proper to expose us, because necessary to our constitution, the more we are incommoded thereby. The Sybarites drove the cocks from their town, for preventing them from sleeping, and then the leaf of a rose would wake them. When we accustom ourselves to travel in carriages as easy as beds, we can no longer serenely slumber in an alcove: and he who avoids the open air, and dares not leave his chamber when the north wind blows, will soon find his bed itself uneasy, and will be offended
even

even at his friend, who, in opening the door, causes a frozen current to assault his legs. It has been said with justice, that “ Effeminacy
“ encreases itself ; when to-day we imagine we
“ are incommoded by that which incommodes
“ no body, we shall to-morrow be incommod-
“ ed by that which to-day is no inconveniency;
“ at last we shall find none but painful situa-
“ tions; the new precautions we impose are
“ new afflictions prepared, and we are always
“ miserable, because, while wishing has no
“ end, happiness has no beginning.”

SECT. 70.

I do not think it necessary to go to bed with the sun in order to do well : I would not have society conclude, that the moment the convivial person occupied during the day, has leisure to begin to enjoy it. He should not.—We may without danger keep awake some of those hours which the husbandman, fatigued with hard labour, sleeps away. But I would not have the man of fashion think that he cannot be happy without breaking through the order of nature, and turning night into day ; that he will not think it beneath him to allow the same luminary to light him which lights the universe ; that he will not imagine that no pleasures are awake to him but when the rest of the world sleeps ; that he will not chuse for his favourite hours that which the ruffian, who desires to be unknown, chuses ; or like the ferocious brute, who attacks his prey in the darkest shades. Pleasure is of all hours, and it is not necessary to his amusement that the sun should have finished his journey : to think, or appear to think otherwise, is to be distinguished by

by a littleness of thought. Pleasure is much more agreeable, and we enjoy it longer, when taken in those hours which detriment health the least; and it cannot be too much insisted on, that it is not equal to stay up late in order to rise late; such habit deprives us of the enjoyment of the pure air, and reduces us to the necessity of breathing the smothered air of a bed, during the greatest part of the day, and confines us at night to inhale the air of rooms, crowded with people, and full of lights, which is necessarily unhealthy. Without striking at the existence of pleasures, let us only time them properly, and walk in the path designed by nature, and we shall certainly be gainers.

SECT. 71.

I would not reduce the opulent to live upon brown bread, lettuce, and cabbages; such food requires organs fortified by exercise and open air. The town air, much thicker than that of the country, renders the appetite less craving, and is of less service to digestion. It causes a necessity for lighter and more savoury foods than that which satisfies the hardy workman. The inactivity of the rich does not permit them to live upon bacon, beans, and pease: such viands would corrupt in the stomach, and occasion many disorders. I would not therefore wish to restrain them to the same regimen as men whose mode of life is so different. It is necessary there should be a specific difference in their food: but between the gross aliments of the labourer, and the heating foods, and sauces of the opulent, a just mean compatible with health may be preserved, and unite lightness, delicacy,

delicacy, and an agreeable relish. Here we may again mention the observation before made, relative to the air, that is, the more we pursue exquisite sensations, the farther we are from attaining our end; the organs become hard to please by frequent use. Simplicity alone can assure a constant taste of pleasure. The water-drinker always relishes it; he who drinks the most delicious wines will always desire new ones. The organs always inflamed by foods and sharp liquids, become callous, the sensations grow dull; thence comes the indifference for every thing which is not delicious, or uncommon; thence the necessity of nourishing with meats and drinks that are hurtful, and even sometimes in the end an impossibility of taking any nourishment; for the consequence of this mode of life being often a total loathing, from which a more simple manner of living is a security, a manner of living which even the most voluptuous ought to embrace: the whole depends on calculation. I have said we do not calculate enough. In considering the matter a little more, we should all encrease the sum of our happy moments, and society in general be the gainers.

SECT. 72.

The danger of the passions has been displayed: I shall not here mention the practical part of that article, which is no longer in my province: the politician may use, and the moralist correct, but the physician is confined to observe only their influence upon health, and to reform the pernicious effects. Unhappily this is very difficult; above all, as long as the cause subsists, we cannot extinguish a fire in the midst of a storm; we cannot secure a ship in a tempestuous

tuous sea ; nor can the abilities of the pilot prevent her dragging her anchors : but a conflagration is less violent, if there are less bituminous and dry materials ; the tempest is less to be dreaded if the body of the ship is firm and well constructed. It is the same with man, whose situation is such as renders him liable to be agitated by passions.

If such a situation is necessary to exist, he is much less affected, if his constitution is firm and robust, his fibres strong, his humours sweet, and his nerves in good order. The passions are still less detrimental to him, whose regimen is regular : he shall farther find himself in the same predicament, and be much less affected by his passions, because the passions are only a lively sensation, and the vivacity of the affections depends on the sensibility of the nervous system. Him in whom this sensibility is disordered, is too much affected by trifles. That which would be only an ordinary or indifferent event if he enjoyed good health, seems to him considerable and alarming.

SECT. 73.

The man destined to pass his days in the heart of large towns or cities, and employed in affairs of importance, cannot move about so much as him who resides in the country. He frequently finds that his sedentary manner of living is detrimental to him, and perceives the danger without the power to shun it. He is more to be pitied than blamed. But it baffles comprehension, to find that many people, entirely disengaged, whose laziness alone is blameable, whose only business is dissipation, and who cannot be ignorant of the advantages and necessity

necessity of exercise, are arrived to such a degree of indolence, that they not only renounce, but fear it; and by that means, deprive themselves of the most agreeable and sure way of diminishing the danger of many ills which their conduct produces: It is the most certain preserver of health and strength: and all persons who have time to employ themselves as they please, should lay it down as a rule, to exercise themselves every day, at least two hours, in walking or riding, in a coach, or on horseback, which is the most salutary. It were to be wished that young ladies in polite life were taught to ride, and that an academy in every large town was appropriated to instruct them in that art, the same as the men. Not only their health, but their external charms would thereby receive advantage.

S E C T. 74.

Disorders of the secretions depend on the other errors of the regimen. They operate more perfectly in proportion as fewer of these errors are committed; and when a purer air is breathed, when the aliments are wholesomer, when the exercise is more, the sleep better, and the passions have less influence, the regularity of the evacuations is consequently re-established. Their route is the barometer of health, which is very sensibly affected by their order or irregularity. I have therefore nothing more in particular to say; and, after these general observations on the mode of life best calculated to secure health, I shall proceed to those methods which seem the most probable to re-establish it when disordered.

A R T I C L E X.

General METHODS of CURE for the principal Disorders.

S E C T. 75.

THAT delicate habit, before defined, being the source of disorders among people of fashion, and common to most, should be the first object of consideration to physicians. They would be less subject to diseases, if they could get rid of that facility with which they receive every impression, which is the characteristic of that delicacy: to consider which, is at present an object of importance.

S E C T. 76.

It principally depends on three causes already mentioned, a weak fibre, a too great nervous sensibility, and a perspiration too susceptible of change. And as it frequently happens that the two last are the consequences of the first, the best method of treating it is to strengthen the fibres. I only speak of cases in which delicacy is the principal object, and not the effects of a languishing disease, which, when of long duration, produces the same effects.

S E C T.

S E C T. 77.

As the seed of this delicacy sometimes exists from the birth, it should be the care of education to eradicate it: the facts which this important article would supply might fill a volume. They shall here be reduced to a few general rules, which are the same as found in many treatises on this subject, but which it may be necessary now and then to call to mind. As the ancients are not so frequently read, the advantage of modern works, which do not contain a single idea that is new, is to place before us useful truths that have been forgotten.

S E C T. 78.

The methods that experience hath taught us are proper to strengthen children, who appear to have been born weak, are the following:

1. They should have a healthy nurse *; with a good breast of milk, that the milk itself may be sufficient nourishment for a year at least. When that is not practicable, and there is a necessity of using other nutriment, it should be given with an equal quantity of milk, which undoubtedly is the most proper aliment to give strength and perfect health to the most delicate infant.

2. While the child is fed from the breast it may be allowed to take as much as it will, or as it can have; but with respect to other food, moderation must be used, that a habit of over-

* The mother, if possible, both for her own sake, and that of her child; and that the child be put to the breast as soon as possible.

gorging may not be contracted. A good digestion is indispensibly necessary to communicate strength, and the only strengthening remedies are such as establish it : but after all, in a delicate child it never can be perfect without an abstemious regimen, to which too much attention cannot be paid ; which if known, or properly noticed by those who have the care of children's education, they would soon be convinced of its good effects. To which end let them but compare the ease, activity, vivacity, spirits, strength, and sweet sleep, enjoyed after a moderate meal, with the anxiety, dullness, lassitude, ill-humour, weakness, and troubled slumbers that follow repletion, and it will be easy to conjecture what effect a repetition of the latter course must have on the health. But what is still worse, is its equally affecting the mental faculties : in the uneasy situation which an overloaded stomach occasions, the faculties are clouded, they comprehend badly, devoid of retention, incapable of application ; they dread and dislike study, the nerves disagreeably affected are incapable of receiving soft impressions ; all seems painful, all agitates, the affections grow callous, the soul is shut to virtue, and the heart to tender sensations, which join with ease, and rapidly breed in the healthy and abstemious child, who is disposed to receive every happy sensation.

3. There is not less attention to be paid to the quality than quantity of aliments.

Cow's milk, when not inclined to obstruct or bind too much, is one of the best ; it has, nevertheless, an inconveniency, but it is easy to prevent it ; that is, when the child lives too long upon it without any other food, a relaxation and weakness of the bowels is brought

on, which sometimes continues even for years.

Grain, above all rice, wheat, maize freshly ground, pulse, principally all tender and delicate roots, panada made with hard baked bread, a little succory, porridge or broth, are next to milk the most nourishing things: they may likewise now and then have new laid eggs boiled very soft, and sometimes a little chocolate mixed with their milk at the age of four or five, but seldom before: they may be allowed to dinner a little tender meat, but not to supper, for suppers should always be light: too much bread is detrimental to the delicate, whose stomachs are weak, and who are subject to the acidities, but is otherwise necessary to those who eat a great deal of meat, being a corrective; but such as live mostly on vegetable diet, have much less occasion for it.

4. They should be prevented from eating pastry, things oily or high seasoned, sauces and heating liquors, which destroy the stomach, strength, and nerves; let them have but little or no acids and never wine, though it appears at first to give strength, in time it must certainly diminish it, as digestion is not so well performed when it is drunk: and it is a known remark in all countries, that water drinkers are more vigorous, healthy, sprightly, and long lived than those who drink wine: the difference is very visible in children, among those to whom it is given, and those who are denied it; the last of whom, at present (at least with us) are by much the greater number. I have seen several who were weak, small, languid, ill, melancholy and sleepless, recovered without any other assistance than the retrenchment of wine, coffee, and tea. There is but one weakness, little understood, and very dangerous, which

can maintain the prejudice in this particular that a total privation of what is not contracted into a habit is unnecessary, and, if discontinued a few days, not hurtful, though in itself inveterate: others think themselves indemnified for the loss of health by the agreeable flavour, and temporary spirits bestowed. Unhappily the malady does not always obviously manifest itself after each error, which occasions admonition to be so often disregarded. Sometimes the inflammatory things themselves seem for a while to be beneficial; but the pernicious blow follows with the greater violence. I have seen children born weakly, or who afterwards became so in a few months by means of an improper regimen, to whom were given, by advice, meat, strong soups, gravy, a great deal of chocolate, and Spanish wine itself, encrease in growth, beauty, and strength for some time, and afterwards, all at once, at about four or six years of age, fall into a violent disorder, which carried them off in a few days, or into a rapid decline, which put an end to their lives in a few weeks.

5. They should never be bound up or swaddled without discussing the numberless reasons on which this advice is founded: let mothers compare a child who has not been bound tight and one who has, or the same child in its tight dress and out of it.

6. They should be washed or bathed in cold water; this of itself is of great efficacy, and without which we cannot promise ourselves to be completely successful. But as directions with respect to this head, are to be found in many works, I shall not at present recapitulate them *. It is also of great service to rub their

* See amongst others Tissot's *Advice to the People*, § 384. T. bodies

bodies frequently all over, but more particularly the back bone, morning and evening, with a piece of dry flannel.

7. The choice of air is another most important article; but I shall confine myself to set forth its necessity without reciting the particulars which should direct us in its choice. It may be objected that every one cannot do it, which must certainly be allowed; but it must be understood, that reference is here only made to weak children: and such persons who are more particularly the objects of this work, are generally in a situation which enables them not to neglect any thing in the education of their offspring. After having chosen a proper place of residence, it must be quitted as much as possible for the open air. Within doors cold rooms should be habitually preferred to hot, and the children thinly cloathed and well exercised; first let them tumble about upon a large bed, afterwards upon the boards, then upon grass or gravel, and when they can go alone, let them walk and run about as much as possible.

8. We must not exact too great an application from a feeble child: the action of the nerves is almost entirely lost on the body; and as it is necessary to encrease the strength, compulsion to a delicate child must be the way to destroy his health, and to throw him into every nervous disorder.

9. They must have as much liberty as possible, constraint intimidates and scares them, destroying their strength and vigour. A celebrated Danish physician, to whom we owe a curious treatise on the cause of the difference between the Germans of Cæsar's time, and those of the sixteenth century, reckons con-

straint

straint among the first causes of the weakness of the latter in education *.

SECT. 79.

When we treat of a mature person past growth, we must employ remedies appropriated to their years. I have seen by temperance, abstinence from fauces, wines, and strong liquors, enjoying exercise and good air, the most delicate acquire strength, and lose those sensations which rendered them so unhappy.

SECT. 80.

After these observations on the prevention and cure of too delicate a constitution, I shall proceed to the different methods of curing its different disorders; their causes, as before mentioned, being imperfect digestion, weak nerves, obstructions in the bowels, irregular perspiration, and an inflammatory disposition in the humours. Such a situation presents these hints, viz.

1. To mend digestion.
2. To quiet the agitation of the nerves.
3. To diminish the feverish inclination by diminishing the sharpness of the humours, and to facilitate perspiration, the obstructing of which causes those catarrhal, and sometimes inflammatory fevers, which finally produce the most malignant disorders of the breast.

SECT. 81.

With regard to the first particular, an opportunity to assist the stomach appears daily, but

* Conringius de habitus corporum Germanor. antiquis & novis causis, art. 6, § 48, p. 226. T.

nothing is more frequently mistaken than the means. Various causes impede digestion, and sometimes they are diametrically opposite. It is, nevertheless, only by attacking the cause that we can effect a cure, when unhappily we think of nothing else but the effect. Some have thought that the stomach which cannot digest, must be weak, and to re-establish its tone it must be strengthened; for this reason are taken multitudes of hot medicines, preparations of steel, aromatic opiates, bitter draughts, burning elixirs, drying pills, and a variety of other drugs equally puffed and pernicious, and only of service in cases where there is too great a relaxation in the fibres, stomach, and bowels—Insipidity in the bile, too much water in the liquids, separated by the gastric and intestinal glands. But very often the disorders of the stomach depend on very opposite causes: the spittle and stomachic juices being too thick and insufficient in quantity, the fibres stiff and inflamed by late hours, melancholy, languor, more common in people of rank than others; heating meats and drinks, bilious inflammation and over-charged liver, more commonly occasion bad digestions and disorders of the stomach, than the weakness and relaxation in that organ. This gives the reason why those disorders very often cannot be cured without a renunciation of such foods, drying regimen, chocolate, eggs, sauces, and hot drinks, to live upon innocent meats, pulse, fruits, sometimes whey, barley-water, lemonade, chicken broth, and plain water; and in trying the efficacy of glysters, the frequent use of which is condemned by some physicians with too much severity; for they are superior to any other remedy when a variety of circumstances concur to cause dryness,

ness, heat, or even an inflammation in the bowels. At other times these disorders require purging, bleeding oftener than is commonly imagined, and frequently baths luke-warm, which powerfully re establish appetite and digestion, when the cause of the disorder is a hot acrimonious, dry, or inflamed principle, which is not uncommon. But they must go into a common bath, for a bathing tub should be prescribed, in which the body is in pain; for what compresses the vessels must be hurtful if often repeated.

S E C T 82.

Nervous disorders, that disposition to be too easily affected and susceptible of irregular and painful emotions, is one of the most cruel scourges to people of rank that has been advanced, it most commonly occurs, and till now, has been peculiarly unhappy in a mistaken treatment, because its origin had not been sufficiently investigated: its different species, which required very different remedies, was left unexamined. This branch of physic is at present too much confined to hypothesis, the subject of party disputes, or at least influenced by fashion.

Many eminent physicians, regarding all disorders of the nerves as the consequences of relaxed fibres, and weak digestions, would effect a cure by means of remedies which are hot, and strengthening, by gums, steel, bitters, camphire, castor, musk, spirituous tinctures, opium, &c. which is an error similar to the following, in speaking of indigestion and stomachic remedies. In attributing all nervous complaints to one cause, they have proposed but one kind of

of remedy, which unhappily has no better success than in complaints of the stomach. Nerves inflamed by the immoderate use of aromatics, are not relieved by using assafoetida; a sharper medicine than the most piquant aromatics; those who are dried up by the abuse of Barbadoe's water and Marasquin, will not find assistance by drinking great quantities of tincture of Gentium, of Valerian, or of Castor; but those remedies so hurtful in these cases, are very beneficial in cases where a weak fibre or poor and watery blood are the true causes of the complaint, and such cases often do occur.

S E C T. 83.

Another class of physicians, in which we may enumerate some justly celebrated names, have adopted a principle broached by the most ancient physicians, and formerly refuted by *Galen*, that the nerves vibrate like strings, that all hysteric, hypochondriac and convulsive disorders depend on the excess of their tension, that they cannot be cured but by relaxation; that by the same rule all the aliments and drinks which are not insipid are hurtful, and that the best and only good remedies are baths, cold or luke-warm, frequent and almost frightful quantities of drinks purely aqueous. This method is excellent, when the sharpness of the humours, the dryness of the fibres, the inflammation of the blood, the heat and thickness of the bile are predominant, and may have, and has had, the most happy success, and has been used by my friend Mr. *Pome*, who with great adroitness hath affected the most admirable cures. But in all cases this is not the resource, but an absolute contrast to the remedy.

S E C T. 84.

The tonic and relaxing methods have their uses; physicians, who confine themselves to one only, deprive some of their patients of the most beneficial remedy; and themselves of the pleasure of success, the manner of employing each should be understood, and often in a very different manner, if success is desired in such cases as admit a cure; a method is not the less estimable because it is the most favourite method of a rival.

S E C T. 85.

There is but one article in which the partisans of the two systems seem to agree, and to which their principles, though diametrically opposite, lead by different paths. It is to forbid severely and indiscriminately bleeding and purging, of which numerous observations demonstrate the use and necessity to those, who not being devoted to either party, attach themselves only to a discovery of the causes, and to oppose to each that remedy which experience has proved to be proper to destroy it.

If those who are replete with genius and literature, and at the head of these systems, would but cast their eyes towards the observations from which they are at present estranged, and behold the inconveniency of treating disorders opposite in their causes by the same method, enlarge their views, and despise what had hitherto occasioned their ignorance, they would increase their own success, and the acknowledgments of the public, and soon perceive that general rules and methods in the practice of physic are dangerous: that they give the greatest
physicians

physicians an empirical appearance, by pretending to cure all by a single nostrum, and insisting upon the dependence of those disorders upon a single cause, which is never so false as when respecting the nerves; the proper treatment of which should therefore be mentioned. But a particular recital, though much desired, would lead me too far from the bounds of my design, I shall therefore confine myself to some general observations.

1. The passions being the common cause of these disorders, if we cannot remove the objects which awaken them, and weaken their influence, there is no cure to be hoped for.

2. Temperance, early hours, abstaining from inflammatory viands and drinks, the use of exercise, country air, and an agreeable relaxation, are the most certain remedies.

3. A facility of being sensibly affected; decrease of mirth, even melancholy without an apparent cause; disordered sleep, whether more short, slight, or sound, and urinary irregularity, being in general the first symptoms of bad nerves, the greatest attention should be paid to the patient in not applying remedies which are too violent. In this class I have seen the most dreadful cases, which have all grown worse, being in the beginning not understood, and treated violently by ignorant empirics, who often order the strongest remedies without the least thought of making an enquiry into the cause of each symptom, and what effect the medicine will be productive of. To those whose nerves are disordered, all impressions being too strong, violent remedies must be terrible indeed, and such mistakes are too common; for nothing occurs more frequently, than to see patients afflicted with every disorder of this spe-

cies, because at first they had attributed to a disordered stomach, those symptoms of uneasiness, stoppages and oppressions in the stomach, bad appetite, flatulency, eructations, the jaundice, which were the first effects of those irregular motions of the nerves, of the stomach, and intestines; and there is certainly no physician, who has any employment, but must have been consulted more than once by people, whose only disorder was nervous, nevertheless which had been treated as scorbutic, to the great detriment of the patient. Again, there are other physicians, who do not believe that nervous disorders exist, but look upon such complaints as chimerical, and when they find their actual symptoms, never deduce them from their true principle, or hardly know what to call them, but generally term them the scurvy, a disease as uncommon among those who are detached from a sea-faring life, as nervous complaints are frequent with people of fashion. All such errors are unhappy for the afflicted, upon whose skin, by a strict scrutiny, may be discovered some small blueish spots; the species is immediately fixed upon—and what is the consequence? they pass six months in taking anti-scorbutics. This trifling alteration in the colour of the skin, which may arise from a number of different causes, and be visible in the strongest persons, is invariably thought to be an error in the blood: in vain the person says nay; in vain he declares he is in good health; that his humours are sweet; that he has never lived but in the most salutary places; that he has not a single symptom characteristic of the imputed disease; that his gums are firm, his teeth sound, &c. 'Tis all useless; and nothing can excuse him from undergoing the long and unnecessary

unnecessary cure of a disorder of which he has not even the seed.

Another still more pernicious error is mistaking disorders of the nerves for venereal complaints, and obliging the patient to suffer a salivation. This mistake may not seem easy; but the many victims to it, sufficiently evidence the fact to admit its mention.

4. The offices of the nerves being those of the animal machine, which seem to require the greatest perfection in all their operations, are the most liable to be disordered, the most difficult to be rectified, and the most susceptible of alteration. It is not therefore at all amazing, that disorders of the nerves should be very common and permanent, and that the alteratives of well and ill, and ill and well, should frequently happen; that the patient need have a great deal of courage, and the physician a great deal of patience, before a cure can be expected.

5. The manner of treating these disorders often requires change, because there may not only be a complication of first causes, each of which should be peculiarly treated, but likewise, because sometimes, when the first cause which had disordered the nervous functions is removed, there must be other remedies to re-establish their tone; and finally, when the mobility of the nerves is too great, being agitated by numberless causes, and their state greatly varied, they cannot sometimes sustain the effects of a medicine, which may have been serviceable to them before.

6. Warm baths, when there is a hot, dry, sharp principle, are indispensable: cold baths, or even those to the last degree frigid, are of great service, when a restoration of the tone a-

lone is to be considered; and the most violent nervous fits are sometimes moderated by taking a piece of ice, when all other remedies commonly used, or authorised by custom, reason, and experience, have only encreased the disorder.

S E C T. 86.

The third thing requisite in treating the disorders incident to people of fashion is, as hath been before mentioned, to diminish the feverish disposition, which is so common, and dependent on the ease with which perspiration is disordered.

As this disposition is principally owing to the same cause which hurts the nerves, and hinders digestion, it chiefly requires the same remedies. The first is an innocent regimen, almost entirely composed of vegetables, without seasoning, wine, chocolate, coffee, or tea.

The benefit of the warm bath used in the morning fasting is here of the greatest utility. I have seen three patients of this class, thrown by these small fevers into a confirmed hectic, whose situation seemed almost desperate, and yet were perfectly cured by using this remedy; and cows milk only for nourishment, which has a good effect when it digests well and there are no obstructions; if there are asses-milk it may be used. But those who would have a rapid cure, must take much larger doses than such as follow the common method; I have made some take forty ounces per day. Whey and acids are in this case of great use.

S E C T. 87.

The Jesuits bark. That divine remedy in many diseases, is seldom serviceable in those caused by heat. If it is used, it should only be when the inflammatory, sharp, and dry principle is destroyed : if then the feverish disposition remains, it dissipates it, and re establishes the strength.

A R T I C L E XI.

Observations on the MANNER of TREAT- ING particular DISORDERS.

S E C T. 88.

P Articular disorders being the effects of general and determinate causes acting on different parts, they should be treated according to the principles which I have already established: I shall therefore be brief.

Extreme Sensibility.

S E C T. 89.

That extreme sensibility to all impressions which render many so unhappy, should be treated like disorders of the nerves on which it depends, and often requires cold baths, milk-diet, much exercise, and the courage to brave the open air, and those things which we most dread.

S E C T.

S E C T. 90.

Sometimes the disorder only exists in the imagination. The vapourish persuade themselves they are not able to do any thing; when they are very strong, they fancy every thing incommodious which they are very well able to bear; they deprive themselves of, and renounce all enjoyments; frighten themselves with an unexisting bugbear, and court a real one. Such cases require the physician's utmost penetration: if he is deluded, the patient is lost, but if he deceives the patient and gains his confidence, a cure is the work of a minute. I have seen five such persons, who fancied they could neither bear light, noise, air, or food, keep their beds in a dark and matted chamber, where none were suffered to walk, move, or speak out with the utmost precaution; lived only on broth and jellies; thought themselves dangerously ill, settled their affairs, and all this while they were perfectly well: I compelled them to see, hear, speak, quit their beds, and even their house, to eat and act like other people; to feel themselves well, and pass in one quarter of an hour from the greatest misery to the greatest happiness.

M E G R I M S.

S E C T. 91.

The megrims at first are the effects of faults in the stomach, which digests too slowly, and forms a slimy and acid matter. At this period great numbers have been cured by abstaining
from

from fatty substances, salted meats, pastry, creams and acids ; in moderating or suppressing the use of wine, and giving mild bitters, joined sometimes with purges of the same kind : Je-suits bark and rhubarb are often used.

When the disorder is so inveterate as to become an affection of the nerves, a habitual illness, it not only obstinately resists most methods of cure, but through prudence, it sometimes should not be attempted, for a suppression of the megrims, as I observed before, causes more pernicious maladies ; we should confine ourselves to mitigate its force, by rendering the fits less frequent, or less powerful, which may generally be effected by using the regimen and remedies already described.

When the megrims attack persons who are strong and full of blood, a total abstinence from wine and sometimes meat is necessary ; at other times frequent bleedings ; some young people have been cured by marrying.

This disorder has sometimes its seat in the *primæ viæ* * and depends upon an accumulated bile which corrupts : purges, a continued use of cream of tartar, and above all a temperate and almost entirely vegetable diet, are the true remedies.

From 55 to 60 years of age the megrims usually lose their force.

There are but few ways of giving ease in the fit : tranquillity is almost the only one which is efficacious.

* By this expression, physicians generally understand the stomach and intestinal canal, because in these, the concoction and assimilation of the aliments begin.

DISORDERS in the EYES.

SECT. 92.

This state of the eyes, mentioned in sect. 37, which is a disorder of the nerves in those parts, joined to an inflammation in the humours, submits only to resting the eyes, being careful to avoid glaring impressions, many lights, fire, watching, strong drinks, and sharp or astringent washes: cold water is the best, frequently used; and early hours should be particularly regarded. Also apply every month or oftner a couple of cupping glasses to the nape of the neck.

CUTANEOUS DISORDERS.

SECT. 93.

Pimples and tetters in the face, and other eruptions, together with itchings, often without any eruptions, arise from irregular perspiration, and the viscidty and sharpness of the humours, or often from bad digestions. Which of these causes produce them should be found, and when discovered, be opposed by the remedies already mentioned in speaking of these disorders.

When it is want of perspiration, with a thickness in the lymph, few remedies are so beneficial as the inward application of chervil-juice, gathered

thered in the spring or the beginning of summer.

Warm baths assist perspiration, when it is prevented by too great dryness; but when derived from another cause, they do more harm than good. I have seen some children who have brought on suddenly a general swelling, apparently the effect of too considerable an absorption. When the *primæ viæ* are loaded with phlegm or acidities, the use of mild mercurials, such as the *panacea alba*, produce the best effects.

In general, in disorders of the skin, sudorifics are seldom useful; purges are preferable; but above all, temperance and a good regimen are necessary. Errors in this are here more obvious than in almost any other disorder; the least disorder in the stomach affects the patient, and causes sometimes an immediate and obvious increase of the eruption, with intolerable itching.

External applications are generally hurtful; it causes a disappearance of the disorder without an eradication, which often carries the malady on some internal organ, and is productive of very troublesome and stubborn effects: the only useful remedies are such as insensibly increase perspiration; we should avoid all others. This humour which lodged in the skin, produces only pimples, heat, and itchings; if carried to the brain, causes convulsions, epilepsies, the palsy, and madness; to the lungs, mortal inflammations or incurable asthmas; to the bowels, excruciating cholics, cramps, hypochondriac complaints and the jaundice: the constitution is hurt past redemption, and those charms to which all have been sacrificed, vanish without hopes of return.

Sometimes

Sometimes some of these disorders of the skin will yield to nothing; their stubbornness arising from so strong a principle of the thickening in the lymph, that nothing can overcome it but mercury, against which its common use and violent effects, have prejudiced many, so much that they will not hear it even proposed, and are offended at its being prescribed. It is undoubtedly doing them a service to let them know that there are many disorders totally different from the venereal, in which the use of mercury is indispensable, and may be given without any bad effect: besides, it may be useful as an anti-venereal to such as little deserve that disorder, but are victims to the crimes of their parents, nurses, or husbands; and persons of the first rank are as much exposed to such secret infections as others.

The Gout.

SECT. 94.

There are many boasted remedies for the gout, but experience has proved the inutility of most. Experience however has shown the efficacy of milk when taken as the sole diet, by its often curing it, that is to say, so long as it was taken, the disorder had no admittance. And it always relieves by rendering the fits less frequent and violent.

Those who have not the courage to follow this regimen, must at least restrict themselves to a very mild one, renouncing oils, acids, ragouts, and even wine, more particularly if youthful.

youthful. I do not advise a sudden abstinence when the gout attacks age, but the quantity of common wines must be diminished, and a little Malaga now and then taken, or Madeira, Canary, or Samos wines. In strictly following this regimen and temperance, supping little or none, or only on milk porridge; in sometimes taking slight purges, and afterwards some agreeable innocent bitters; in exercising; in using at the proper season domestic warm baths in which a little soap and a few aromatic herbs are put, benefit may be found; frequent bathing the legs in the same manner will be serviceable. We have had an example of a person afflicted by the gout many years, who had long and painful fits every spring and autumn, that by bathing his legs in this manner twice a-week escaped for four years together *. Mineral baths are useful; and if there is one popular prejudice, of which reason and experience has proved the absurdity, it is that which forbids bathing in the gout.

In the fit the part should be kept warm; temperance observed; taking cold avoided; and if the fever is strong, to moderate it by cooling-drinks, by bleeding, leeches, and glysters.

If weakness causes it to wander it should be fixed by cordials inwardly and external irritations to the part where it is best to be settled.

The numberless symptoms whether sudden, or chronic, mostly dangerous, which are the consequences of a wandering gout, require a variety, and often a long course of remedies, which cannot be subjected to general rules.

* *Commerce. Liter. Norici*

T.

DISORDERS of the BREAST.

SECT. 95.

Disorders of the breast are, coughs, difficulties of breathing, inflammations, tubercles, and consumptions; but coughs and difficulties of breathing are the symptoms of disorders, rather than disorders themselves, and which may be reduced to inflammations, obstructions, and suppurations; spasms, gangrene, scirrhus, and adhesion of the lungs, are out of the question. Inflammations have several degrees, the first is that trifling irritation attended with a slight obstruction in the vessels of the lungs, the consequence of sharp humours, or their inflammatory disposition, which occasion a dry * cough more or less violent, and a flushing heat which varies likewise, as the obstruction is more or less violent. The most obvious marks of impaired health are leanness, less sleep, parched lips, and the pulse a little quicker than ordinary, especially after the use of such meats or drinks as are in the least heating. The first state of hectic inflammation, and the only one necessary to mention here, may continue several years without being considerable. It sometimes has long intermissions, the patient is sometimes tolerably well for several months, and then has a little relapse; and this alternative exists till the cause of the disorder is either eradicated, or by

* This dryness is a sufficiently distinguishing mark betwixt this case and that of a rheum, which is likewise a slight inflammation of the lungs, arising suddenly from some external cause, and terminating by a copious expectoration of mucus. T.

its gaining ground, terminates either in an inflammation of the breast, which may prove fatal in a few days, or by a slight suppuration which becoming an ulcer, leads to a real consumption.

SECT. 96.

It appears from what has been said, that though this state may continue without appearing very alarming, it should not be neglected for fear of the bad consequences, which may, from several causes, suddenly happen.

The remedies are,

1. An innocent regimen, mostly vegetable, but above all ripe fruit.

The reader may perhaps be terrified on finding in each article an exact regimen prescribed. I am sensible of the same, but its importance, and the little hopes of success without, make it appear indispensibly necessary. How should cooling remedies dissipate the inflammation in the blood if it is at the same time increased by strong meats, hot drinks, nightly revels, and general excess: Is there any hope to bring a stomach to its proper tone by remedies, if twice a-day improper aliments are taken? Is it reasonable to think that aperients will be of use in obstructions, or operate when surrounded by fat or oily food, which by sheathing, prevents their acting, and increases at the same time the stoppage of the vessels?

2. There is nothing better to change the inflammatory disposition of the blood and lungs, than small bleedings in the arm now and then repeated.

3. Whey plentifully drunk in spring, lukewarm half baths in fine weather, and frequently bathing the legs before retiring to rest

4. Great

4. Great care to avoid the air, of places too much inhabited, or that which is too piercing; the air of hot rooms, or where there is too much company; to live much in the country, and particularly to retire soon to rest, for in this case late hours are very hurtful.

Persons thus afflicted should avoid singing; and vocal music ought to be banished from the education of young people whom we may suppose to have the seeds of this disorder. Employments which require much exertion of voice should be shunned; and the office of Major to a regiment has often killed military gentlemen whose lungs were not the strongest; the constrained attitude, practised in general, during their exercise is very prejudicial to the breast, and I have seen several officers whom it has caused to spit blood.

When the disease seems aggravated, the bleedings ought to be repeated often and flesh diet discharged.

In this state the consequences are more feared about the age of thirty than at any other time; and this popular fear is not without foundation: it is certain that when the body is come to its full growth, and the fibres acquired strength, the blood likewise thickens and inclines to be inflamed; the person is engaged in business, meets with rubs, the mind is more on the rack, he sleeps less and not so sound; all this augments the disorder, and the lungs are easily inflamed. If that age which is the most violent and dangerous is past, and he arrives at the age of forty without an increase of the disorder, there is much less danger: it nevertheless remains and sometimes I have seen the suppuration form at the age of fifty six: but nevertheless, by a strict observance of the regimen already laid down, the

tient may live very long, after coughing all his life, with no other inconvenience in his old age but extreme leanness, more frequent coughing, and more abundant expectoration, for the space of half an hour after rising in the morning. The lungs, which had been long inflamed, now become relaxed and require much the same treatment with regard to diet, but not the same remedies, indeed seem to admit of none.

SECT. 97.

Persons thus afflicted should avoid marriage, which augments the complaint, and hastens the consequences.

SECT. 98.

Spitting blood is often the effect of a fall, a blow, violent exertion, strong passions, and other sudden and straining causes, but these are unnecessary to be mentioned here; but that spitting of blood which is the natural consequence of defect in the lungs, often attached to particular families, and which often destroys them, shall be considered. It proceeds from a weakness in the vessels of that organ, which having less strength than is proportionably necessary, yields more easily to the efforts of the blood, which by degrees swells, distends, and renders them varicous or aneurismatic*.

It is seldom seen in infancy—the watery humours, innocent foods, their digestive functions, and copious evacuations, prevent it: but it sometimes displays itself as soon as puberty ap-

* By *varices* physicians mean morbid dilatations in the veins of any organ; and *aneurisms* are such as happen in the arteries.

appears, sometimes later, commonly between twenty and thirty years; then the same causes mentioned in sect. 96, concerning inflammation, appear, and begin to dilate the vessels; the patient is attacked by a trifling cough, slight oppression, weakness, leanness, and hoarseness; this state continues often for months; at last the spitting of blood appears more or less; this is the dangerous time, this is the time when it is alarming. Sometimes the vessels shut after this first bleeding without inflammation or suppuration; but being weak soon are distended, the distention impedes respiration, the patient is oppressed, he coughs, cannot sleep, his lungs are disordered, his strength diminishes, and his blood is disordered; he feels irregular attacks of a fever, which soon becomes continual with exacerbations in the evening, terminated by a nocturnal sweat more or less plentiful, which greatly weakens; but if it does not take place, the oppression and cough redouble their rage, so that he neither knows whether to desire, or fear it most.

It augments progressively, sometimes in a return of blood spittings, other times they never more appear, but the fever encreases, and the anguish and restlessness become intolerable; the leanness daily encreases, the strength decays, and a deadly fainting finishes the life of the patient when he least expects it, often without a purulent expectoration, and even sometimes without any expectoration at all.

SECT. 99.

Other times the malady takes a very different turn; after the first spitting of the blood, it forms an inflammation in the lungs and suppu-

ration; the hectic fever, cough and purulent spittings come on, and the disease making the same progress as in the preceding case terminates in the same manner.

SECT. 100.

The most certain method of preserving such as are attacked by this dreadful disorder, is to prevent the spitting of blood; it sometimes happens, though rarely, that the disease makes all the progress mentioned in § 98, and that the patients even die without spitting any blood, in such a case, every thing proper ought to be used to check the disorder; the most effectual are those mentioned in sect. 96, to prevent the progress of inflammation. Above all, young persons who are threatened with this disorder should be proscribed from their infancy whatever encreases blood, tends to inflammation, or settles upon the breast: follow the directions in sect. 96. Singing and declamation are likewise in this case more hurtful than in the preceding. Whalebone stays are dangerous, and should not be absolutely forbid, they often cause spitting of blood two hours after having been put on. With these precautions success may be expected. I preserved the last of fifteen children, fourteen of whom perished by this means, between twelve and seventeen years of age.

SECT. 101.

When the spitting of blood has once appeared, the hopes of a perfect cure are much lessened: the best thing to be done is bleeding frequently, which always shows the blood in an inflamed state, light food, whey, decoction of
barley,

barley, acids, pure gentle air, tranquillity, and seldom any other motion than an easy ride on horseback; the patient must be weakened and reduced, if we may be allowed the expression, for some time by the gentlest method possible; and when once the fever is gone, and the inflammation in the blood destroyed, the strength must by degrees be recruited by gentle restoratives, such as small doses of Jesuits bark.

S E C T. 102.

In their birth tubercles * are not very dangerous, and do not obviously exist; they are found in dead bodies without the symptoms ever having appeared when alive; but when they become more numerous or larger, and occupy a considerable part of the lungs, they begin sensibly to impede their functions; the patient finds a difficulty in breathing, and is easily out of breath; going up hills, walking, violent motions, hot rooms, and wet weather affect him; he breathes short, and is sometimes obliged to be quite still, but has commonly neither pains nor heat at the breast.

As the malady encreases, these symptoms become stronger, joined to a little dry frequent cough; but sometimes, nevertheless, violent fits happen, combined with obstructions in some of the viscera of the lower belly, and above all in the small lobe of the liver, and attended with a weight at the pit of the stomach, sometimes an uneasiness all round the body, as if one had a girdle drawn too tight.

* Vide § 41.

S E C T. 103.

Tubercles neglected too long or badly treated, or sometimes even though ever so well treated, may have bad consequences; either the patient perishes merely through a cessation of the action of the lungs, without inflammation or suppuration, which throws him insensibly into a weakness and consumption, with symptoms similar to those mentioned in sect. 98, and finally into a mortal languor, when these tubercles suppurate and ulcerate.

S E C T. 104.

The first method of termination is not uncommon, the afflicted die without pain, even without cough or spitting; other times he has a cough and spitting, but only voids a slimy matter arising from the irritation of the vessels of the lungs like the spitting in the beginning of the rheum, very rarely drops of blood, and more uncommon still, at the expiration of the disease, corrupted matter.

S E C T. 105.

The second termination is an inflammation of the tubercles; these tumours compressing the sound neighbouring parts, cause an obstruction. A fever begins, the swelling is inflammatory, the patient has a shivering, fever, cough, oppression, and all the symptoms of a slight inflammation or thick rheum: the disorder often receives this last name; it terminates by a small suppuration at the bottom of the tubercle; he spits a small quantity of corrupted matter for
a few.

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a few days or weeks, he keeps his room, drinks balsamic pectorals, and is cured for a while. A second tubercle makes greater progress; the inflammation is heightened by heat, the same symptoms, caused by the first, are re produced and end similarly.

The same scene is often repeated during several years, and becomes more frequent with time; at last part of the lungs being destroyed, the resources are destroyed; the termination is no more complete, a permanent suppuration is established, the lungs are destroyed, a purulent consumption succeeds, and the conclusion is death.

S E C T. 106.

This species of disorders of the breast though known ever since the first existence of physicians, and well described with its two terminations by *Hippocrates* himself, has not sufficiently excited the attention of physicians. At the end of the last century, Mr. *Morton*, an English physician, and about forty years since, Mr. *Dessault*, a physician of Bourdeaux, made the importance of this article evident: nevertheless it has not been sufficiently considered as yet, and many physicians seem scarcely to know it; and what is still more alarming, its treatment is really difficult even when known, because care must be taken in giving the attenuants necessary to remove the obstruction not to cause an inflammation.

In the beginning, while the disorder is only a crude tubercle without inflammation or suppuration, an innocent regimen, consisting almost entirely of herbs, fruits and water, once or oftener bleeding, if the patient seems to be
plethoric

plethoric, aperient remedies of the mildest kinds, among which M. *Deffault* with reason, places mercury, of which I have often seen the good effects, soap pills, an extract of hemlock and juice of white horehound, are the best remedies. It is in the cure of this species that the water cresses hath gained a reputation superior to most other things. Milk is improper in these cases, and if used, peculiar circumstances in particular patients are the occasion, and in general, we advise not to use it too indiscriminately in all kinds of coughs: there are many in which it is very hurtful.

When the disorder takes the first turn, and is arrived to the crisis mentioned in sect. 103, it is a most incurable phthisic; a cure cannot be expected, and all that can be hoped for is to retard its progress; the means to effect which, vary so much that it would be improper here to insert them.

SECT. 107.

In the inflammatory state of each tubercle while it remains, treat the patient accordingly by bleeding, innocent drinks, oxymel *, nitre, and light diet; and when it is arrived to the state of suppuration, let him be confined to vegetable diet, honey, and barley water, or proper pectoral infusions, such as ground-ivy and speedwell; and if he has a small fever daily, small doses of mineral acids will be of service.

* Oxymels are forms of medicines in which honey and vinegar are united.

SECT. 108.

Decoctions of saponaceous herbs are often useful in this disease, they work upon the tubercles like aperients, and at the same time correct the inflammatory disposition of the blood : for which reason they may be successfully used as long as this first state subsists, the pulse is hard, and the blood retains the pleuritic crust ; and I have often seen the good effects of ground-ivy, groundsel, sow-thistle, great house-leek, &c. but when the state of the blood is changed, and passes from inflammation towards dissolution, they must be proscribed because they haste its progress.

SECT. 109.

We find consumptions, tho' different at first, similar in their last stage, which is that of a supuration established upon the lungs. At this period the requisite remedies are the same for all species, and are soon equally useless : the cure of this disease requires a specific to destroy the virulent disposition of the blood, but unhappily none such is yet known ; therefore all that can be tryed is to cause the patient,

1. To live uniformly upon vegetables or skim-milk ; this regimen does not destroy the purulency, but forms a kind of blood, much less susceptible of corruption than meat, and by that means retards its progress.

2. To give remedies which concur to the same end, moderate the fever, and at the same time support the strength : small doses of Jesuits bark and a little spirit of vitriol in their common drink, above all, at the time of the
encreasing

encreasing fit, are useful ; a little myrrh often does good ; a simple decoction of barley, oatmeal, or rice, an infusion of periwinkle, equals, in my opinion, the most boasted drinks.

SECT. 110.

While strength remains, and the pulse continues strong, a little blood frequently taken away is beneficial, because it prevents the inflammation in the lungs which the matter would cause, and an increase of the fever which would be the consequence : thus it always retards, though it cannot cure the disorder, and for all the prejudice of the public and many physicians against bleedings in consumptive complaints, my own experience has confirmed what *M. Dover*, many years since, asserted in their favour in this disorder ; the characters and difference of which have not as yet been sufficiently examined, and which I may, perhaps, farther investigate in a future work of this kind. I shall now proceed to.

DISORDERS of the LOWER BELLY.

SECT. III.

The first is bad digestions, but as the proper treatment of them has been mentioned, nothing farther can be said here upon that head

The intestines being upon the same construction, and of the same use as the stomach, are subject to the same disorders, and should be treated in the same manner as in sect 81. When the patient feels a heat in them, and is costive,
and

and at the same time has flushings, drought, and a quick pulse, the use of fresh water as table-drink, glysters of simple water, and carefully abstaining from all heating meats will remedy those symptoms while purges are tried in vain, since in general they only irritate. But when such simple assistance is insufficient, every morning and evening half a quarter of an ounce of cream of tartar should be taken, or a quarter of an ounce of pulp of cassia recently extracted, without mixing water, as is commonly done by the apothecary. If the entrails are tender, and if there is no fever but only a great deal of heat, dryness, and inflammation, symptoms which are often the effect of a sharp bile too much irritated, the softest pulp of cassia is to be preferred; in the fever cream of tartar is best, warm baths are likewise excellent.

SECT. 112.

The hæmorrhoids are another disorder of the intestines, which for above an age were generally looked upon as beneficial, though in reality pernicious. This incontestable principle may be established, that they are always the effect of bad health. It is true, that while this bad state continues, they are an evil which may prevent others, but since they are an evil, tho' supportable, and but little incommodious, that may become painful and dangerous, and that otherwise their irregularities, when habitual, are as inconvenient as the irregularity of the courses, they ought to be checked in their very first appearance; that is to say, all possible means should be used to destroy the original causes, which are commonly obstructions in the

K

bowels

bowels of the lower belly, too much blood, a stubborn costiveness, and sedentary life.

The superabundance of blood is lessened by diet, a vegetable regimen, now and then laxatives, sulphur, and cream of tartar.

The means of removing costiveness has been shown: stoppages in the vessels now require attention.

OBSTRUCTIONS in the BOWELS.

SECT. 113.

Obstructions are the impediments which the juices meet with in passing through the small vessels, and have various degrees: a *slow circulation*, in some part, either owing to weak vessels, thickness, or viscosity of the fluids, or some compression, to which the part is exposed, is the origin of obstruction: if the circulation entirely ceases in some vessels, the obstruction is more mature, and when it ceases in all, complete. If the part at the same time has acquired a great degree of hardness, and the nerves so much compressed as to become insensible, the disorder is a scirrhus; no part is exempted from obstructions, the lungs and brain are subject to it, but the bowels most.

1. Because they have from several causes a slow circulation.

2. For a reason not sufficiently attended to, viz. the being more exposed to irregular pressure, which depend on the continual variation in the distension of the stomach and bowels.

3. By the nature of the humours which are separated in most of the bowels; and above all, on account of the bile, too susceptible of thick-
ness

ness and hardness: so that of all the viscera none are so liable to obstructions as the liver.

Of ten adults who have obstructions, nine of them are in the liver; others have them chiefly in the mesentery, which is their common seat in children, and sometimes in the pylorus, which being surrounded by many glands, is consequently very liable to obstructions, and easily becomes scirrhus—a cruel disorder attended by vomitings, a weight, and afterwards pain in the part productive of death, the patient perishing with hunger, and after having felt the sharpness and corruption of the humours, and above all of the bile, which is always disordered, and sometimes black and foetid. Of cases in this species we want better accounts than have hitherto appeared.

The spleen is much seldomer obstructed than is commonly believed.

SECT II4.

The first remedy is temperance; for only by diminishing the humours, a re-establishment of the circulation in the obstructed part can be hoped for.

2. Care to avoid greasy and viscous aliments, such as feet, heads, and entrails of animals; pastry, milk, chestnuts, potatoes, and indeed whatever causes phlegm.

3. The choice of meliorating aliments, such as herbs and watery fruits. Obstructions which have withstood all other remedies, have been removed by living six months upon wild succory: and all kinds of ripe fruits which succeed each other without intermission, from the earliest cherries, to autumnal grapes; with a little bread and water.

4. By regularly rubbing with a dry flannel every morning, the part affected and the bowels, which facilitates the circulation, and dissolves the thick humours. The use of these frictions is described at large in an *Essay on the Health of Sedentary Persons*.

5. By much exercise in country air, without which success cannot be hoped for.

6. By a constant use of attenuating remedies, beginning always with the mildest: the best are the juice of succory endive, and anti-scorbutic herbs, simply expressed when the season, plant, and stomach permit; an extract may be prepared when the plants are no longer juicy; when the stomach cannot retain any thing raw; or finally, when it is necessary to dissipate the virulent, or too active juices, such as hemlock; Venice soap, gums, antimonial preparations, bitter salts, cream of tartar, sea-water, mineral-waters, mercury, steel, and aperient roots.

The choice of these remedies is determined by accidental circumstances. Obstructions of the liver require the juice of fruits, herbs, salts, cream of tartar, and saline mineral waters. Those of the mesentery, soap pills, gums, mercury, antimony, steel, and mineral waters impregnated with sulphur.

The intermission or presence of the fever, acid or putrid symptoms, require variety of remedies. During the use of aperitives in obstructions, but particularly those of the bowels, purges must be frequently employed.

In those of the pylorus care should be taken not to use any sharp remedy, the effects of which acting upon the part itself ulcerate it, and has terrible consequences.

SECT 115.

Warm baths, by relaxing the vessels, and dissolving the humours, greatly assist the cure, and when there is no reason to the contrary should never be neglected, but above all in obstructions of the liver.

Persons subject to bad nerves are often troubled with obstructions which are the consequences of these disorders, and require the same remedies. But the most active which are given in other obstructions, in these irritate too much, and instead of lessening, encrease the disorder. Warm mineral bathing, even without drinking the water, has often cured obstructions which had baffled all other remedies.

Of CHOLICKS from STONES in the GALL-BLADDER.

SECT. 116.

Cholicks, which depend on stones in the bladder of the gall, and commonly arise from the passions more than any thing else, should be corrected by drinking only water, and a vegetable diet; the juice of herbs, above all succory, dandelion, cresses, fumatory, are the best remedies to expel; whey, manna, honey, and long journies in a carriage, the motion of which may be quickened, and rendered more rough, according as the use of the remedies mentioned have been continued; mineral waters and those of Balaruc, which produce excellent effects,

are very proper to destroy this disorder. But when there is room to suspect stones of a larger size, such active medicines should be avoided, which far from diminishing, encreases the disorder, augments the pain, and may have very bad effects.

S E C T. 117.

The vapours and hypochondriac complaints remain to be mentioned, but cannot be so copiously treated of here, as in a work begun ten years ago, which I shall carefully execute and publish to the world, concerning disorders of the nerves. I have nothing to add to what has been said of nervous complaints in general, and shall therefore proceed to female disorders mentioned in sect. 47.

IRREGULARITY of the COURSES.

S E C T. 118.

The first is irregular menses, arising from the sharpness of the humours, a tendency to obstructions, and the mobility of the nerves and passions. This disorder should be carefully treated, and in all suppressions depending on these causes, hot remedies are cautiously to be avoided, on account of irritating the nerves, and giving an inflammatory thickness to the blood, thereby prolonging instead of ending them. They yield to a mild regimen, a regular life, warm baths, mild aperitives, constant exercise ;

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exercife *; but purgatives, which are detrimental in the fuppreffions, are more dangerous in thofe which arife from nervous diforders.

Frequent menftrual evacuations, require the fame mode of life; whey, baths almoft cold, Jefuits bark when it is certain there is no hot principle, bleedings, gentle purges, and fometimes ftrong acids, feldom astringents, which in delicate perfons may caufe fpafms or other nervous complaints. Milk made the fole nourifhment will cure fome whom other things will hardly eafe.

M I S C A R R I A G E S.

S E C T. 120.

There are two things to be confidered in the treatment of mifcarriages. One to prevent a mifcarriage when it feems to threaten; the other to prevent that difpofition to frequent mifcarriages, which has been before mentioned. Thefe objects pre-fuppofe that the greateft attention has been given to examine their caufes.

When it is a too great quantity or heat of blood that caufes the mifcarriage, which is often occafioned by an exertion, ftart, emotion; or extenfion of the arm, the beft remedy is directly to bleed once or oftener; to put the patient in a bed rather hard than foft; to let her be immoveable and filent; to give her nothing but a few infipid aliments and cooling drinks, fuch as barley or rice waters, almond milk,

* Riding on horfeback, is of all kinds of exercife the beft, and particularly fo in this cafe.

chicken broth; one or two glisters daily to prevent the bad effects which hardened excrements may cause. The acuteness of the pain sometimes requires anodynes; but sometimes the best remedies are ineffectual; and when there is a plentiful flooding, it is difficult to prevent a miscarriage. Sometimes it is imagined that the disease is got the better of, the flooding and pain ceases, the patient revives and hopes, but in a few days the symptoms re-appear, and never depart till the burden is dropt.

SECT. 121.

When the miscarriage is caused by weakness, it is longer in taking place, being towards the fourth, fifth, or sixth month, and is announced for some time before it arrives, by the mother's languor, weakness, paleness, pain in the reins, heaviness in the bowels, a diminution of the infant's motion. If early, when this state begins, the mother is kept quiet, and takes nothing but what is light and nourishing; if some mild strengtheners are given, intermixed with one or two laxatives, if it is suspected that stoppages in the *primæ viæ* are one cause of the weakness, and if applications are made to the reins according to the symptoms, the life of the child may be preserved and a miscarriage prevented. But if it is neglected, and the flooding begins, which in this species comes less forcibly than in the other, there is but little hope; and indeed, it can hardly be wished for, for this kind of miscarriage rarely happens till after the death of the child. It is best for the mother to be delivered first, because if the labour is stayed after the child is dead, she seldom enjoys good health till she is freed of it.

SECT.

SECT. 122.

Early precaution to prevent miscarriages among those who are subject to them, should be carefully taken, as they are easily divined by the rules established in the two preceding articles; but their application requires many directions, and contains remedies which cannot be expected to be found in a work not designed to give any instruction to physicians, but to make known to the patient what is necessary for the knowledge of her situation, that she may perceive the necessity of a cure, and be tractable to the advice of such as direct it.

CONSEQUENCES of LABOURS.

SECT. 123.

The consequence of labours depends on the mother's state of health, her conduct during pregnancy, and her mode of living at all times. The only method of being as happy in this particular as the robust countrywoman, is to acquire her health, but that being impossible, the means I have found to procure happy consequences to delivery for women, for whom I have had reason to fear in this period, are,

1. To avoid, in the last weeks of pregnancy, all that is over heating, in temper, meats, and drinks.
2. Daily exercise in open air till the time of delivery, unless something essential prevent.
3. If they are of hot temperament, full strong pulse, and are accustomed to plentiful menses,

menfes, they must be let blood eight or ten days before the time, and sometimes during the labour.

4. The body should be kept open during the latter end of pregnancy, not only by glysters, but even by gentle purges. Pregnancy generally causes bad digestions: at first they have loathings and longings; they eat what is unhealthy, and the stomach operates badly. In a few months when the stomach recovers, the bowels are oppressed by the weight of the child, their functions are necessarily impeded; even the secretions of the bile suffer; it gathers, the matter corrupts and forms that putrid heat which I have assigned as a principle cause of the effects of bad labours. When before labour they have purgative evacuations, it prevents these evils.

5. To procure the same openness of belly after the labour by glysters, or even laxatives, which are generally too much dreaded in that situation, and of which I have seen the good effects when given in proper time, and when it appeared necessary, in the first day of the in-lying; and so far are they from hurting the discharges which follow delivery, that they render them easy and regular, and prevent their suppression and inflammation of the uterus, which is often the consequence, by removing the irritation which causes them. But it is not here advised to purge upon all occasions, and at all labours; many times it is unnecessary, at other times does harm; but by numberless observations it has been found requisite, where the symptoms appear to demand evacuation, purging may be used without any hesitation.

SECT. 124.

The very means which contribute to good labours, contribute to prevent an effusion of milk, and render it uncommon. When it is necessary, there should be great care taken, and a variety of assistance given according to the circumstances, which some day or other may perhaps be the subject of a pamphlet, in which I shall recount all the observations which I have had occasion to make, and some not hitherto known; but here I shall confine myself to some important particulars.

The first is carefully, in the regimen and remedies, to avoid acids; tho' a strong fever may seem to require them; but they are always prejudicial, at least unless indicated by a complication.

The second is, that as long as there is no gatherings made, but the milk is mixed with the mass of humours, absorbents joined to diluents and intermixed with some purges, are the best remedies.

The third is, as the nerves in these cases are very delicate, and susceptible of irritation or spasms, all violent remedies should be avoided.

The fourth is, nature being weakened by this milky humour, which sometimes causes the palsy, or obstructs the organs where it goes, it is often requisite to call in the assistance of strengtheners, notwithstanding the fever; and even a very considerable fever, which, if it arise from a quite different cause, must be treated with cooling things. It has happened more than once, that for want of making this observation, physicians, otherwise skilful, have suffered their patients to languish many months under

under continual fevers, which nothing could assuage.

The fifth is, when there appear symptoms which seem to indicate an inflammation on some internal organ, nothing should be neglected to remove it; the least inflammation may draw the milky gathering to that part, which then will require strong external applications to destroy it.

The sixth is, sometimes baths of mineral waters may be of great use, when all other remedies have failed.

FLUOR ALBUS.

SECT. 125.

To treat copiously of the fluor albus would take as much time as the milky effusions, but I must here likewise restrain myself to generals.

SECT. 126.

They are often the effects of bad digestions; the bad consequences of which not being repaired by an active life, form a quantity of slimy matter and waterish blood, which causes habitually this running more or less plentiful or permanent: the chief symptoms of which are mentioned in sect. 65. A dry regimen, much exercise, a long use of restoratives, and some purges, are the common remedies. It is principally in this class, which is the most common, that all hot waters are detrimental; and,

Art. XI. of treating particular Disorders. 121

as the author of *Experimental Physic* remarks, the bad affects of coffee with milk or cream are instantly evident, a cure cannot here be effected without the patient abstains from what is milky or oily, and from pastry, and the great use of greens and fruits, which in these cases are too relaxing and watery,

SECT. 127.

When they arise from a general bad state of the mass of humours, from a real cacochymia, they resist all remedies; at least if the cause is not removed, the disorder would bring on an hectic fever, consumption, dropsy, and death. Most happily this class is uncommon. A re-establishment of the foundation of health only, can give hopes of a recovery, and that is often difficult. An exact diet, and a few purges assuage the disorder when incurable, and may be considered as a drain to a tainted body.

SECT. 128.

Sometimes copious floodings, frequent labours, and milky evacuations by the womb, leave a principle of weakness, which is the only cause of the whites. When mild restoratives continued long, chalybeate waters, and purges (for they cannot be cured without them) with cold baths, are very useful.

SECT. 129.

A fourth cause frequently productive of this disorder, is what may be called a catarrh of
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the uterus: this organ is habitually in the same state as the membrane of the nostrils and the lungs at the beginning of a rheum. Heat and heaviness in the bowels, with symptoms of a tolerable state of health, usually accompany this species. Bleeding, warm baths, diluents, asses milk, and a mild regimen, often effect a cure; but hot and strong things are hurtful.

SECT. 130.

In all these cases care should be taken to guard against astringents, which suppress the disease without destroying the causes, and have pernicious effects.

Mineral baths are useful in cases almost desperate.

This disorder may be placed among those which are hereditary; even sometimes it appears very early: I have frequently seen it at the age of seven years, and once at three.

It is true, I could generally trace the causes of these early maladies in the mother, or faults of the regimen. They are sometimes in young persons preceded by disorders in the bowels, which cease when they appear; others complain of cholics when the whites are in small quantity.

When they are suppressed or diminished without their cause being removed, the consequences are head-achs, coughs, and sometimes the jaundice.

I shall finish this essay, (the omissions and imperfections of which I am sensible of) by repeating, that I am far from presenting a project of reformation. It cannot be those to whom it is most necessary—men to whom their
situation,

situation, talents, reputation, long experience, and a well established authority, give them the right of speaking useful truths without fear of offence, with that energy which is necessary to persuade. I like others, may behold with regret, persons who, by their birth, employments, and education, are called to fill the most essential stations in society, to whom they are dear, and whose health is as important as their influence might be powerful, are precisely those who enjoy the worst, because they continually labour to destroy it, by following a mode of life which is directly opposite to it, and which is so far from encreasing their pleasures, shortly deprives them of the very power of enjoying them, by throwing them into that state which excludes all.—Is it possible that they can give themselves up to illusion in a point so essential? Are there any to whom it is indifferent whether they are well or ill? Can the inestimable benefit of health be so perfectly unknown to every individual in one rank of society, as to be scarcely desired, or what is worse, that languor should be as attractive as the excrescence on the throat is to the inhabitants of the Alps, or blackness to the Negro? This thoughtless excess is scarce credible; for sure none but a malicious satyrist can say *that it is not fashionable to be well*. What fashion is it but a fashion which renders it impossible to be happy, and to discharge our duty properly? Never ought it to be received by any order of mechanics, much less by those which are composed of persons the most intelligent, who truly languish by error, not system, and who will undoubtedly be happy in being disabused. I shall congratulate

myself if the perusal of this essay should evince to any the danger of their manner of living, and recal them to one less detrimental, or engage other physicians better situated for the purpose, more able and eloquent than myself, to execute so necessary a work, of which this is indeed but the outlines.

F I N I S.

A N
E S S A Y
O N T H E
D I S O R D E R S
O F
P E O P L E O F F A S H I O N.

By Mr. TISSOT, M. D.

F. R. S. London; of the Med. and Ph. S. of
Basil; of the Oeconom. S. of Berne; and of
the S. of Exp. Phy. of Rotterdam.

Translated from the last FRENCH Edition:

With NOTES, by a PHYSICIAN.

E D I N B U R G H:

Printed by A. DONALDSON, and sold at his
Shop, No. 48, East corner of St. Paul's
Church-yard, London; and at Edinburgh.

M. DCC. LXXII.

THE UNIVERSITY OF CHICAGO

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PHYSICS DEPARTMENT

NOTICE

TO THE STUDENTS

OF THE PHYSICS DEPARTMENT

OF THE UNIVERSITY OF CHICAGO

AND OF THE PHYSICS DEPARTMENT

OF THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

NOTICE

TO THE STUDENTS

TO THE
HIGH, ILLUSTRIOUS, AND MIGHTY LORDS,
THE
LORDS, CHIEF MAGISTRATES, TREASURERS, BANERETS and SENATORS,
of the CITY and REPUBLIC of BERNE.

High, Illustrious, and Mighty Lords,
TO former bounties, your Excellencies have just now added one still more considerable, by creating in my favour an office as honourable as unexpected. Having no other method of renewing my gratitude, permit me, High, Illustrious, and Mighty Lords, to offer you in this public manner, the imperfect expression of it, and be pleased to accept with indulgence this first essay of my academical labours in the professorship you have entrusted me with. May Providence prosper this establishment, and pour down its most precious blessings on the republic over which you preside, as
well

iv DEDICATION.

well as on the persons of your Excellencies, the continuation of whose exalted benevolence I venture earnestly to desire.

I am, with the greatest respect,

High, Illustrious, and Mighty Lords,

Your Excellencies

Most humble and

Most obedient servant,

LAUSANNE,
April 26, 1766.

T I S S O T

T H E

AUTHOR'S P R E F A C E.

IT was never my intention to have given this dissertation in French, I had even prevented Mess. Didot and Grasset from printing the translations of it offered to them: besides the faults in the work itself, which I had proposed to correct in a new Latin edition, its oratorical form seemed to require that it should remain in that tongue, the language of the men for whom it was drawn up. I have been obliged to alter my plan, and an abominable translation of it published at Paris * has put me to the necessity of having it reprinted under my own inspection, that I might avoid the shame of having written so bad a book as the one that was published with my name to it; and which is certainly not mine, although the translator has endeavoured to persuade the public that it was, by the following false declaration in an advertisement at the beginning of this incom-

* *Avis aux Gens de Lettres & aux Personnes sédentaires sur leur Santé, traduit du Latin de M. Tissot Médecin, à Paris, chez J. Th. Herissant fils.* The work is not only much curtailed, but is so amazingly disfigured, that in some places I hardly know it again; and the translator seems generally to have mistaken the sense of the original, which in itself was faulty enough in point of order, neglect, inaccuracy and false print, without being additionally deformed with blunders against common sense and the first elements of physic, swarming in the translation: T.

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plete pamphlet, which I knew nothing of till I saw it mentioned in a catalogue: "M. Tiffot himself has been so kind as to look over this translation; he has approved of the notes which have been added, and we have made use of his remarks with thankfulness *."

I at first only intended to have corrected it by the original, and just to have given a faithful translation of it; but this I found impossible: so that being obliged to throw it into a new form, I determined to insert all the corrections and additions designed for the new Latin edition; it may therefore be looked upon almost as a new work; but which will unfortunately appear to a disadvantage from the quickness it has been composed with, in the midst of continual interruptions: this, together with the sending away each manuscript sheet to the press as soon as it was finished, has been the occasion of many inaccuracies and repetitions in the language; for which I beg the reader's indulgence, who will certainly think that I stand in need of it, on many other accounts.

Although there are many writings extant upon the disorders incident to the learned, yet, I may venture to say, that the subject is still al-

* It were much to be wished that all translators would do what this one pretends to have done, and would consult the authors themselves, as most of the translators of the *Avis au Peuple* have been kind enough to do; the public and the author would both be benefited by it; but it is an affront which calls for reproof, for any one to give it out that it has been done, when it never has. I have just seen, with much concern, that this translation is reprinted in Holland, by Messrs. Rey, in the *Extraites des meilleurs Journaux de l'Europe*, combined with the *Journal des Scavans*, January, 1768. And I beg the favour of all gentlemen who are concerned in the Journals, to make my disclaiming of this translation known to the public.

most new ; and I hope that experienced men will not find it quite the same, after having read this treatise. That of Ramazzini upon the same subject, and especially some articles in one of the late M. Platner, are almost the only works in which we find it considered in some of its true points of light ; but M. Ramazzini had only represented a few of them, and M. Platner, who would certainly have exhausted the subject if he had made it his business, has only touched upon it as it were by the by ; and yet he seems to have been the author who had the best conceptions of it. The large volume published by the late M. Pujati, an eminent professor at Padua, who has given us other excellent performances upon this interesting subject, is nothing more than a compilation of general dietetic rules, without any new observation, or any circumstance relative to the state of the learned *.

I have endeavoured to point out all the particulars, with regard to health, which distinguish the state of the learned from that of other ranks in society, and have explained their effects as clearly as possible ; I have concluded with directions which appeared to me best calculated to lessen the dangers of this kind of life, which can never be so wholesome as might be wished ; and I shall be well satisfied if that respectable part of mankind, which dedicates itself to the instruction of others, should here be able to find some advice, the observation of which may diminish the evils they are exposed to by their professions. They might perhaps themselves contribute to make this work more perfect, if they would be kind enough to com-

* *Della Preservatione della Salute de Letterati Venez.* 1762. T.

municate the important observations they may have been able to make upon their own situation.

There is nothing new in the part concerning diet ; almost all the advices I have given, may be found in all the authors who have written on the methods of preserving health. But if we acquire eminence by publishing new truths, so on the other hand we make ourselves useful by collecting those which are known, for the benefit of the persons to whom they are necessary ; and surely one is as good as the other.

Although it becomes more and more the custom to leave quotations out of French writings, yet I have preserved them, because they appear to me useful. Authors who exhaust their subject, and leave nothing for their successors to say upon it, may do without them ; their works are complete buildings, which will never be touched again : but unfortunately this is not the case with me, any more than with many others, and therefore I think it right to produce quotations, that if any one should chuse to go on with the same task, he may find out more readily from whence information and assistance may be had. I have not done it in performances which are only the result of my own observations ; but when we apply the remarks of others to our own use, there is certainly no impropriety in giving them the credit, by a few letters at the bottom of each page, where they cannot be inconvenient to any body.

LAUSANNE,
April 8, 1768.

N. B. The notes marked T. are the author's ; those marked K. are by the late Dr. Kirkpatrick ; the others are by the Physician who wrote the notes on the Diseases of People of Fashion.

A
T R E A T I S E
O N T H E
D I S E A S E S
O F
L I T E R A R Y and S E D E N T A R Y P E R S O N S .

GENTLEMEN,

HAVING had the honour of being appointed to introduce a science into this university, which, until the present time, had no established professor, I proposed, on this first occasion, to have observed the various relations which medicine has to the other sciences, that have been taught here for many ages with great reputation and success; and afterwards to display both the advantages it derives from, and those it reciprocally communicates to them.

It would have been most agreeable to me to declare, in this public manner, the many important precepts in which medicine coincides with religion; and entirely to have silenced those shameless impostors, who have dared to calum-

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niate the religious principles of physicians. My satisfaction would have been still increased, by displaying the many lights reflected on religion by a science, which, from a thorough scrutiny into the physical state of the most perfect creature, from the admirable mechanism of a man in health, and perhaps the still more surprising recovery of one from sickness, establishes the most unanswerable demonstrations of the existence, and of the infinite wisdom, of his Creator. Were it possible to suppose every notion of a Deity effaced in the minds of men, physicians would speedily revive in them the sublime ideas which their profession affords them of that Eternal Being, of whom none (if a physician may be permitted to affirm it) have conceived and reasoned more competently, or with greater impression and dignity.

What a number of authorities might I quote in vindication of this sentiment! I must not, however, omit our father Hippocrates, who first argued against the existence of chance, and maintained, that all events which were called fortuitous, were directed by the will of the Almighty *. Neither must I omit Galen,

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* If the religious sentiments of Hippocrates have been falsely called in question by some, they have been as powerfully vindicated by others. John Stephano, a Venetian physician, published at Venice in 1638, a very interesting work, entitled *Hippocratis Cei Theologia*, wherein he proves, that the tenets of this physician, as well as those of Plato, Aristotle, and Galen, agreed much with the Christian religion; and in 1688, M. Drelin-court gave a Greek oration upon the same subject, which has been translated into French. At the beginning of this century, Mr. Grundling, professor at Halle, published, under the title of *Leisure Hours*, a collection of dissertations in the German language, one of which was intitled *Hippocrates Atheist*; but M. Goelicke in his oration, and afterwards in his *History of Physic*; M. Triller, in a Latin course, intitled *Hippocrates falsely accused of Atheism*, lately reprinted in the collection of his

a writer next in fame to Hippocrates, who has proved in a very circumstantial manner, that the actions and uses of the different parts which compose the thumb, are a sufficient demonstration of the existence of a God; and who calls his book *De Usu Partium*, &c. a monument erected to the glory of that Being *. Nor must Polychrestus be forgotten, whose great piety recommended him to the glorious title of the "peculiar friend of God †:" nor Boyle, who not only wrote many excellent things himself, but also by a pious foundation bequeathed a large fund, in order to engage the most learned men in England through all ages, in defence of natural and revealed religion, against infidels and unbelievers. Should I not also mention his friend Sydenham, the modern Hippocrates; the immortal Locke; the great Boerhaave; and the celebrated Hoffman, a man

his *Opuscula*, with considerable additions; Mr. J. Le Clerc, in his *Bibl. Anc. & Moderne*, t. 15, p. 428; M. J. A. Schmid, in a dissertation printed at Helmstadt (the Religion of Hippocrates;) and lastly, M. Fabris, in some remarks in the 13.th volume of his *Bibliotheca Græca*; have all of them so fully refuted these heinous accusations of Hippocrates, that the uprightness of his religious sentiments can no longer be called in question. Wherever he speaks of any thing relative to the Deity, he does it as a man filled with the most profound respect for that awful Being. Is it possible, indeed, that any person should be more thoroughly convinced of his existence than physicians are? Do they not behold him every where? and do not the wonders of his works fall every instant under the notice of their senses? Perhaps it may even be said, that divines meditate on God, and that physicians behold him. T.

* Galen seems quite as religious as Hippocrates; and although two passages are found in his works, one of which attempts to invalidate the proofs of Christianity, the other ridicules the attachment the first Christians had to their doctrine; it does not certainly follow from hence that Galen was an atheist, but only that he was not a Christian. T.

† ΘΕΟΦΙΛΕΣΤΑΤΟΣ.

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truly pious, though not entirely free from superstitious opinions? Neither must I pass over in silence those of our own time; amongst whom Mr. Tralles, who has so completely refuted the sophisms of La Mettrie, certainly deserves our notice *; as well as Mr. De Haller, who, with an energy peculiar to himself, has given us a discourse upon the dangerous principles and fatal consequences of irreligion; and has contrasted them with the fundamental truths and happy effects of Christianity †. It is true, indeed, that the more enlightened physicians are, the less will they be liable to be infected with superstition, or the extravagances of popular enthusiasm, or to be seduced by the workings of a disordered imagination, which any teacher may lay down as the rule of truth, because it is his opinion. On the contrary, they laugh at these phantoms, and are not contented to embrace the shadow of truth instead of its substance. Hence arise the many accusations, the many bitter invectives and calumnies, which have been always outrageously misapplied to those who have the least deserved them.

I should have pointed out with no less satisfaction the strict connections, nice dependencies, and perfect concatenations by which the science of morals and that relating to health are reciprocally united; and should have entered upon this track with the greater confidence, as it has been already trodden by our two greatest masters, Hippocrates and Galen. The first, in his small treatise on diet, endeavours chiefly to prove, that the souls of all men are alike, and accounts for the difference observable in

* *Anima humana, &c.* T.

† *Discours sur l'Irreligion, à Neufchâtel, 1755.*

T.

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their understandings; from the excess or moderation of their appetites.

The second has successfully demonstrated the influence the various diseases of the body have upon the faculties of the soul. There are now more than sixteen centuries elapsed, since he desired, that philosophers, who were intrusted with the education of young persons, would confide such as were irregular in their conduct to his care. “ Let those, says he, who doubt
“ whether some can be restrained, others spurred on; some become incontinent, others sober, enterprising or timorous; mild, modest,
“ or morose, according to the difference of their food; let them apply to me to settle
“ what diet may be necessary for them; and they will soon find themselves better disposed
“ to natural philosophy, and more capable of improving the powers of a rational soul,
“ when I have strengthened their sagacity and memory by these means, and that they are
“ become more knowing, and more ready to apply. For besides what relates to their
“ food or drink, I will also teach them the influence of the winds, the nature of the atmosphere which surrounds us, and point out
“ to them those places which are best adapted to their constitutions, as well as those which they must avoid.” * †.

How

* Quod animi mores, corporis temperamenta sequantur; cap. 3. Charterius, tom. v. p. 457. T.

† The effects of a truly judicious diet and regimen, even in a state of health, may possibly extend its influence to the mind; and co-operate, with good precepts and examples, to some improvement of the sentiments and conduct of youth, as the passions may be rendered less active and rebellious, by the temperature of the blood. It is highly probable nevertheless, that Galen promised here to the very utmost of what he and food, supposing him to allow a sufficiency of it, could effect; nor is

How largely soever I might have expatiated upon this subject, it would scarcely have been possible to take notice of all the connections which law and physic have with each other. If the legislator would compile a code of laws; or the judge on the bench decide any questions relative to civil, common, or ecclesiastical law; they will meet with many instances, in which they will be obliged to call in the principles of our art to their assistance; and to apply to that extensive branch of physic commonly called the *medicina legalis*, or medicine of the bar.

It would be necessary to take a survey of almost all the parts of natural philosophy, should we attempt to enumerate the various relations which medicine bears to this science. The first philosophers, who employed themselves in the contemplation of nature, applied themselves also to the cure of diseases; and Pythagoras, Empedocles, Democritus, &c. were equally skilled in the great sciences of medicine and physics. Hippocrates first distinguished these two sciences, not with intent to separate them entirely, but only to reduce, into a smaller compass, an immense field of knowledge, sufficient to occupy a number of well qualified men, and too extensive to be sufficiently cultivated by one;

it necessary to suppose our sensible author, who refers to him, believed the utmost of all he professes here. We were intended by Providence for diverse, though not for evil, characters; and nature will generally recur, in spite of diet, to her connate propensities and passions; the regulation, not the extinction of which, is the object of education and philosophy. Mr. Prior's dietetical argument in his *Alma* is very entertaining at least, and not inapposite here, whatever credit he might seriously allow it.

Was ever Tartar fierce or cruel,
Upon the strength of water-gruel?
But who can stand his raging force,
When first he rides, then eats his horse!

K.

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in which, however, each co-operator is still to remember, that the spot he works upon is a part of one and the same whole.

That branch of natural philosophy employed in the study of the body, considered merely as a body, has been distinguished by the name of physics, while others have received their titles from the different kinds of bodies, which were the subjects of their various enquires. The human body is the object of medicine; and how useless is medicine without a knowledge of physics? Whosoever is unacquainted with the powers and properties of bodies, and the laws of motion, will never be able to learn the art of healing: professors of physic never deal with students so ill qualified. Now if medicine reaps many advantages from physics, it must also be allowed that physics are no less useful to the former; natural philosophy having been much improved by physicians. Gilbert, an English physician, was the first who laid open the phænomena, of * electricity. The great Boyle, a doctor of Oxford, has enlarged the science of physics more than any other man of letters; Boerhaave, in his experiments on the elements, has set this branch of knowledge in a new light; and to mention no more, the celebrated Muschenbroeck, whom all the writers in physic consider as their leader, has laid the foundation of his reputation in the practical treatises he published.

There is a connection between the study of medicine and that of languages, history and literature, which, though not quite so striking, is by no means imaginary. What physician would

* We think, under correction, this should have been magnetism; Gray having first written on electricity. K.

not be ashamed of being unacquainted with history, or the belles lettres? What physician would relinquish the satisfaction of reading the fathers of the sciences in their own language? or, who does not regret his being unable to read that of the Arabian physicians, of whom we have no faithful translations extant?

These sciences also derive reciprocal assistances from that of medicine; which alone can clear up some obscurities in history. Those who wish to speak pure and elegant Latin, are continually reading the works of Celsus, one of the most celebrated physicians among the ancients. Pliny, although he never practised physic, yet was well acquainted with it, and directed his studies chiefly to the advancement of medical knowledge; and it has been justly affirmed of him, that his readers did not only find great assistance towards the knowledge of the Latin tongue in his writings, as in those of other authors, but that even the whole of this language was contained in them. Aretæus, who is esteemed a great proficient in the art of healing, was also well versed in the Greek tongue. Galen has an eloquence peculiar to himself, as Alexander de Tralles has likewise; and the learned in the Arabic language say, that it is no where to be found so pure, as in the writings of the physicians.

It would seem at the first glance, from what I have advanced, that there were little difficulty in expatiating on such a copious subject; but on a farther attention to it, I have been induced to think otherwise; and therefore leaving this elegant topic to men of superior talents, I have chosen one from the practice of physic, which may please perhaps on its own account, and which only requires to be represented in a plain

plain manner. The husbandman talks of his oxen *, the sailor of winds; but being invited as a physician to speak before a learned body, I flattered myself with the hopes of engaging their attention, by an interesting discourse on the health of men of letters.

§ 2. It has long since been observed, that a close application to study is prejudicial to health; and Celsus, after having informed men of learning of the dangers to which they are exposed, by their immoderate attachment to it, has laid down some rules for guarding against them. Plutarch, that excellent judge of whatever is good and laudable, went farther by not only recommending to all learned men to attend to the rules of physic, but even to study medicine themselves; for he thought it unreasonable that they should consume their lives in enquiries frequently of little consequence, while they neglected the study of health itself. They certainly do not know, says he, that this valuable art was for a long time a part of philosophy; and that it is essentially necessary to those persons who macerate themselves with much daily thinking, and with many sleepless nights.

§ 3. The diseases to which the learned are particularly exposed arise from two principal causes, the perpetual labours of the mind, and the constant inaction of the body; an investigation into the fatal effects of which causes will exhibit an accurate description of their diseases.

§ 4. Metaphysical speculation enquires into the causes of the influence of the mind on the body, and that of the body on the mind: medicine is engaged in less abstruse, but perhaps

* De tauris dicit arator, navita de ventis :
Quod medicorum est, promittunt medici.

in less uncertain researches ; it does not attempt to display the first causes of this reciprocal power in the two distinct parts of which man consists, but confines itself to an attentive observation of the phenomena that result from it. Experience instructs the physician, that such a peculiar state of the body must necessarily produce a certain correspondent exertion of the soul ; that such emotions of the soul must unavoidably be attended with a reciprocal alteration in the body ; and that, while the soul is absorbed in thought, a part of the brain is kept in a state of tension, which becomes fatiguing to it. Thus far only physicians extend their enquiries ; and this indeed is all that is requisite for them to know.

The connection of the soul with the body is in fact so strong, that it is even difficult to conceive how one of them should act, and the other not be sensible, in a greater or a less degree, of that action. The organs of sense being put in motion, convey the subject of thought to the mind, by acting on the fibres of the brain ; and while the soul is employed in thinking, the parts of the brain are in a greater or less forcible motion, and in a less or greater degree of tension. These motions fatigue, the medullary or nervous portion of the brain ; and this delicate substance, after a long course of meditation, becomes as much exhausted as a strong man is after exercise*. Who-

ever

* A striking instance of this happened not many years ago to a gentleman remarkable for his accuracy in calculation ; upon a wager, he lay down on a bed and wrought, by mere strength of memory, a question in geometrical progression, while another person, in another apartment, performed the same operation with pen and ink : when both were done, he repeated his product, which was a line, consisting of sixteen

figures.

ever has thought intensely, even once in his life, must have experienced this in himself; and there is certainly no very studious man, who has not often felt, on coming out of his closet, violent pains in his head, attended with a great degree of heat in this part; this heat will depend on the proportion of weariness and inflammatory tension, which the medullary substance has undergone: the eyes soon become sensible of this fatigue; and if we consider a man who is deeply engaged in thought, we shall see that the muscles of his face are all upon the stretch, and sometimes appear even convulsed. Plato has taken notice of the danger of fixing the attention too strongly: “When the action of the soul is too powerful,” says he, it attacks the body so violently, that it throws it into a consuming state: if the soul exerts itself in a peculiar manner, on certain occasions, the body is made sensible of it, and becomes heated and debilitated.” Ramazzini, a famous Italian physician, has observed the same. “The union of the soul with the body is so intimate, that they reciprocally share the good or evil which happens to either of them; the mind cannot put forth its powers, when the body is tired with immoderate exercise; and too close an application to study destroys the body, by dissipating the animal spirits, which are necessary to recruit it *.”

figures, and insisted that the other gentleman was wrong, desiring him to read over his different products, which being complied with, he pointed out the step where his first mistake lay, and which had gone through the whole:—he paid very severely however for gaining his wager, as for a considerable time he had a swimming in his head, pains in his eyes, and severe head-achs upon his attempting to apply to figures.

* *Opera omnia*, p. 648. T.

That we may understand the influence the workings of the mind have upon the health of the body, we need only remember in the first place, the fact I have already mentioned; and which every person who thinks, and takes notice of his thinking, must be sensible of, viz. that the brain is in action during the time of thinking. 2dly, That every part of the body which is in action becomes weary; and that if the labour continues for any length of time, the functions of the part are disturbed. 3dly, That all the nerves proceed from the brain, and exactly from that part of it supposed to be the seat of thinking, and called the *sensorium commune*. 4thly, That the nerves are some of the most principal parts of the human frame; that they assist in all its functions; and that whenever their powers are disturbed, the whole animal œconomy must suffer. These evident principles being once established, every one must be sensible that when the brain is exhausted by the action of the soul, the nerves must of course be injured; in consequence of which, health will be endangered, and the constitution will at length be destroyed without any other apparent cause.

§ 3. Books wrote on trifling subjects can bring on no other inconvenience than loss of time, and weariness of sight; but those which by the strength and concatenation of ideas seem to raise the soul as it were above itself, and compel it to meditate, wear out the mind, and exhaust the body; and the more we have been delighted with this meditation, and the longer it has been kept up, so much the more fatal will the consequences be. M. De Montesquieu observes, “ that every thing becomes tiresome
“ to us in process of time, and especially those
“ things

“ things which give us the greatest pleasure :
 “ the fibres which have been exercised by them
 “ stand in need of rest ; others therefore bet-
 “ ter disposed to serve us must take their turn
 “ of duty, that labour, by this means, may be
 “ divided amongst them *.” M. Mallebranche
 was seized with a violent palpitation as he was
 reading L’Homme de Descartes ; and there is
 now at Paris a professor of rhetoric, who finds
 himself indisposed at the reading some fine
 passages in Homer †.

§ 6. The brain, which is the immediate seat
 of these emotions, the nerves which arise from
 it, and the stomach, which is furnished with
 many nerves of an exquisite sensation, are the
 parts first attacked, and commonly most injur-
 ed by the immoderate labour of the mind ; but
 if it should continue for any length of time,
 almost all the parts of the body become par-
 takers of the injury.

§ 7. M. Van Swieten speaks of a man of
 letters whose health had been impaired by lite-
 rary watchings ‡ : whenever he listened with
 attention to any story or trifling tale, he was
 seized with giddiness ; he was in violent agonies
 whenever he wanted to recollect any thing
 which had slipped his memory ; he oftentimes
 even fainted away gradually, and experienced
 a disagreeable sensation of lassitude. There
 was still a more troublesome circumstance at-
 tending this complaint ; for whatever efforts he
 might make, it was never in his power to sus-
 pend this involuntary recollection ; but he was
 obliged to go on with it against his will, till at

* *Petit Porte-feuille*, p. 113.

T.

† Lorry, *De Melancholia & morbis Melanchol.* tom 1. T.

‡ These are what the ancients called *Lucubrations*. T.

length it made him quite ill †. M. Viridit, my fellow citizen, was acquainted with a woman who was seized with a violent fit of the colick, every time she applied herself to any thing ‡; and a modern author speaks of a man whose arm swelled considerably whenever he gave way to thought, or was suddenly affected by any circumstance *. I was once consulted by an English gentleman, who, during his stay at Rome, applied so closely to the mathematics, that after a few months he lost the use of his eyes, although they shewed no outward appearance of injury. He made others read to him, but soon after his senses were of no service to him; so that he could not bear the most trifling conversation for the space of a few minutes.

My friend M. Zimmerman gives an instance of a literary complaint of too interesting a nature to be omitted. A young gentleman of Switzerland, says that learned physician, gave himself up entirely to metaphysics; he soon perceived that his mind grew weary, which he endeavoured to conquer by closer application: this increased his disorder; notwithstanding which he studied still more earnestly. This contest lasted for six months, and the disease increased to such a degree, that the body and the senses became injured. The health of his body was restored by medicines, but the mind and senses degenerated in a manner almost imperceptible into a compleat stupor. Although he was not blind, he appeared not to see; al-

† Commentar. in Boerhaav. aphor. t. iii. p. 413.

T.

‡ *Traité du bon Usage*, t. ii. p. 647. This work seems to be little known, although it appeared in 1735, not long before the death of the author; it contains a number of good observations, and is therefore worthy of more notice.

T.

* *M. Bordeaux Prix de l'Acad. de Chir.* t. vi. p. 199.

T.

though

though he was not deaf, he seemed not to hear; and although he was not dumb, he never spoke a syllable. He slept however, eat and drank, without taste, or without aversion; never asking for food, nor refusing it when offered. He was deemed incurable, and therefore no medicines were given to him; and he continued in this state during the space of a year. At the expiration of this term, a letter was read out aloud in his presence; he started, complained inwardly, and put his hand up to his ear. This being observed, the person who was reading raised his voice; he then began to cry out, and discovered symptoms of exquisite pain: the experiment was repeated, and he recovered his hearing by excess of pain. The other senses were restored one after another in the same kind of way; and at the return of each sense, it was observed that he recovered gradually from his stupidity; but his pains were so acute, and his strength so far exhausted, that he was for a long time in great danger of dying. At length nature prevailed almost without any assistance * of art; his health was entirely restored; and he is at present one of our most

* This recovery, with scarcely any medical assistance, is an indisputable averment; and here an importantly medical query arises, viz. Whether this recovery, which we are informed, and find by the issue, was a compleat and perfect one, would have been the consequence of much medical, or rather pharmaceutical assistance, which may certainly sometimes more justly be termed *interruption*? The ingenious physician, from whom Dr. Tissot cites this extraordinary case, has manifested great judgment in submitting the cure (after the cause was evident, and the further continuance of it removed) almost entirely, if not solely (though doubtless under a proper regimen) to the conduct of nature, whose own crises, where her powers are not too much depressed for a liberal exertion of them, are very generally more compleat and elective, than our imitative substitutions for them by art. K.

learned philosophers †. It is impossible to explain these phænomena otherwise, than by admitting the nerves to be affected, and by the influence the soul has upon them.

§ 8. Daily experience convinces us of the power of the soul upon the stomach. Those most addicted to reflection, perform their digestion, *cæteris paribus*, with greater difficulty; on the contrary, those who think little, generally digest well. We frequently see persons of weak understandings eat and drink very freely, without suffering any inconvenience, although they lead sedentary lives, and have not remarkably strong constitutions. On the contrary, how many sensible men do we see, whose digestion is performed with much pain and difficulty, although they are of a good habit of body, and use some exercise. The same organisation of the human body which renders vomiting one of the first symptoms of an injured brain, after a blow on the head, takes place in all irritations of that organ: the effect is always proportioned to the cause: and if it is an uncommon thing that the labour of the mind should be carried to such a height, as to produce instantaneously the same effects upon the nerves, as are occasioned by a violent blow, yet there are still some instances of this kind. A man of extraordinary genius, who has been extremely studious, told me not long ago, that after having applied very closely for several hours together, as he found his imagination

† This observation is extracted from a chapter M. Zimmerman has inserted in his Treatise on Experience in Medicine, upon the Effects of the Attention of the Mind; he took the trouble to translate it for me after the first edition of this little work: the chapter is full of useful observations, which I shall hereafter have occasion to make use of.

highly worked up, he perceived that his head became suddenly weak, his ideas were all confused, he lost his comprehension, became sick, and vomited several times. Mr. Pome speaks of a learned man who had so far weakened his stomach by study, that he vomited after every meal *. This unhappy consequence of intense application has been more constantly observed than any other†. Aristotle was obliged to wear upon the region of the stomach a bladder filled with aromatic oil; and M. A. Antoninus had so far injured this viscus, by the continual state of extension in which his mind was kept, by the government of the empire of the world, and the cultivation of literature, that, according to the report of his first physician, Galen, he was subject to indigestions he could not get rid of, without fasting for four and twenty hours, and taking a glass of warm wine, in which a few grains of pepper were infused. The same author has handed down to us the story of a woman, named Arria, whom he was very fond of, and who, by an assiduous application to Plato's Philosophy, had so weakened her stomach, that she could not take any nourishment, and was so debilitated, that she could not support herself any other way than by laying on her back ‡. M. Boerhaave, who lived long in a city where learning is much cultivated, says, that study begins by impairing the stomach; and that if the complaint is not relieved, it may degenerate into a melancholy. A famous Portuguese physician used to say,

* *Traité des Vapeurs Hysteriques*, p. 248. T.

† Disorders in the stomach are often the consequences of passions of the mind, and of none more frequently than of grief; yet there are instances where the same effects have been produced by too close an application to agreeable subjects.

‡ *De Theriaca*, ad Pisonem. cap. 2. Chart. t. 13. p. 932. T.

that a vitiated stomach attends learned people, as surely as the shadow follows the body *. I have myself seen patients who have suffered for this immoderate thirst of learning, first by a loss of appetite, an entire inability of the digesting powers, and a total debility which ensued; afterwards they have been tormented with spasms, convulsions, and at length with a total privation of all their senses.

§ 9. The injury the mind has done the body soon recoils upon itself; for it has been the will of the Supreme Being, that as long as these two substances continued together, the labours of the mind should in a certain degree depend upon the health of the body: this truth has been ever acknowledged. Pliny the younger has emphatically declared, that “the props of the body supported the soul †.” And long before him Democritus had said, “Health increases the powers of the mind; when the body is diseased, the mind is not capable of reflection ‡.” It is not therefore surprising that the mind should be weakened, after it has exhausted the brain and debilitated the nerves. Plato indeed chose an unwholesome place for his lecture-room, thinking that if he was in less vigorous health, his mind would be better disposed to reflection; but his conduct on this occasion is not to be admitted as an objection to what has been advanced, being directly contrary to his general doctrine, and only relative to his own peculiar habit, which was rather bulky and inclined to fat; so that he was desirous of having a fever, in order to become more lean. Neither should it be objected that

* Amati Lusitani curat. Medicæ. p. 153. T.

† Epist. lib. 2. epist. 9. T.

‡ Epist. ad Hippocrat. Foes. t. 2. p. 1288. T.

some men of great learning are very sickly ; for if we examine attentively the state of their health, we shall be convinced that the disorders they have been subject to, have not arisen from any affection of the brain or nerves, whose original powers are sometimes so strong, that they are but slightly disturbed by the vitiated state of the other organs, and remain capable of supporting the functions of the soul.

§ 10. The first symptoms which indicate a weakness of the nervous system, are a kind of pusillanimity we were before strangers to ; diffidence, fear, grief, dejection and dispiritedness : he who was the most intrepid man now becomes the most timorous ; the slightest undertaking frightens him, the most trifling unforeseen incident makes him tremble ; the slightest indisposition appears to him a fatal disease ; and the idea of death fills him with intolerable horrors. Some tyrants have condemned certain philosophers, whom they hated, to death, but have never been able to make them fear it ; how much more effectually would their cruelty have been exercised, if by suffering them still to live, they could have inspired them with those fears of death hypochondriacs are tormented with ? We see instances every day of men of learning, who perceiving the first signs of this distemper, have been obliged to forsake their favourite studies ; whose nerves being weakened, they become incapable of attention ; their memory fails : their ideas are confused ; a sensation of heat in the head, palpitations, a total dejection, and the apprehension of death makes the pen fall from their hands. Quiet, nourishing food, and exercise, soon restore them to their former health ; but as soon as they return to their books, they are again obliged to quit them. The day passes in
these

these alternatives; at night they are fatigued and cast down; they go to bed, but their nights are much disturbed; the irritability of their nerves prevents them from sleeping, and oftentimes even from the power of thinking. I know a young man, who after having studied very hard, could never open a book without being seized with convulsions of the muscles of the face and head, which then seemed as if it were bound tight with cords. It would be needless to produce a greater number of examples, to shew the danger of intense application, and its fatal influences upon the nervous system, since they would only serve to swell the volume, without affording any additional proof of the truth of the assertion, which has been already sufficiently established. “ Study (says M. Rousseau) makes men tender, weakens their constitution; and when once the body has lost its powers, those of the soul are not easily preserved. Application wears out the machine, exhausts the spirits, destroys the strength, enervates the mind, makes us pusillanimous, unable either to bear fatigue, or to keep our passions under *.”

§ 11. The labours of the mind do not only weaken and irritate the nervous system, but also produce disorders of the nerves, which are strongly characterised, and cannot be mistaken. Galen knew a grammarian who was seized with an epileptic fit whenever he was intent upon teaching or thinking of any thing †. I have myself seen, and M. Van Swieten observes the same, very promising children, who have been forced to study so constantly by severe masters,

* *Preface de Narcisse, œuvres diverses, t. 1. p. 172.*

T.

† *De Loci Affect. l. 5. c. 6. Chart. t. 7. p. 492.*

T.

that

that they have become epileptic during the rest of their lives. M. Hoffman speaks of a young man who was seized with a momentary fit, whenever his * mind or his memory were overloaded; as soon as he quitted his studies, the palpitations ceased, and he recovered his health †. The famous Petrarch was afflicted in the same manner.

§ 12. An infinite number of other diseases are brought on by study; besides those which immediately attack the nerves by disturbing the system. A celebrated mathematician troubled with an hereditary gout, and who was always a very regular man, hastened the fit, by applying too closely to the solution of a difficult problem ‡. The uncommon accident which happened to M. le Chevalier D'Epernay is well known: after an assiduous application for the space of four months, without any previous symptom of disease, his beard, his eye lashes, his eye-brows, and in short all the hair of his head and body fell off ||. This phænomenon was certainly brought about by the little bulbs, which are the roots of the hair, being deprived of nourishment; and this might arise from three causes: 1st, from the powers of the stomach, the first organ of digestion and nourish-

* This rationally suggests, that the person affected thus might not be constituted by nature for a man of letters, tho' well fitted perhaps for some other pursuit. We may be certain, the proportion of people intended for study and contemplation, and of those intended for various employments, even down to servitude, is very wisely ordered by Providence, though we seldom form the calculation. As the condition of our existence in this life requires more labour than speculation or amusement, it is doubtless very right that the unlearned should constitute the majority in every state.

† *Medicin. Ration. de Epileps.* § 19.

T.

‡ Van Swieten, t. 4 p. 305.

T.

|| *French Gazette*, Feb. 23, 1763.

T.

ment,

ment, being disordered : 2dly, from the action of the nerves, which have so great a share in nutrition, being diminished, and which being employed by the soul, were inadequate to the functions of the body : 3dly, from that kind of slow fever men of letters are subject to, and which destroying the nutritious lymph, makes them become pale and thin, and often throws them into a state of consumption and decay. This fever is often produced by the irritation the heart receives from the too earnest application of the mind, in consequence of which its pulsations become more frequent.

§ 13. In order to conceive the effects of deep thinking, it may be considered as a ligature applied to all the nerves, which putting a stop to their action, brings on the same consequences upon the whole machine, as a ligature applied more or less tight to the branch of a nerve, would induce on the parts to which that branch was distributed. Reflection exhausts us also in the same manner as immoderate evacuations do, which waste the body, destroy its powers, attenuate the humours, and produce a too great irritability of the nervous system. Large bleedings, frequent purgings, salivations too copious, too great a flow of urine, in short every immoderate evacuation, by weakening the tone of the vessels, and subtracting too much from the quantity of fluids, prevents the nervous fluid or the animal spirits, on which the action of the nerves depends, from being properly prepared in the brain. Meditation also, by keeping the nerves too long in a state of action, wastes the spirits too much, and hinders the brain from preparing them ; so that in both instances, this important fluid, the purest substance, and most highly prepared of any other
in-

in the human body, and which is most necessary for the performance of its functions, is either deficient, or undergoes some alteration, which must inevitably produce many disorders. There is, however, an essential difference between a debility of the nerves, caused by excessive evacuations, or the fatigues of the body, which are attended with the same consequences, and that proceeding from the attention of the mind; which is, that the first of these causes does indeed for a time suspend the secretion of this liquor, but does not disturb the secretory organs; whereas the second, to wit, the labours of the mind, affect the organ itself, as I shall explain more fully hereafter. The first takes from the manufacture some materials it should work upon, the other attacks the manufacture itself; and these disorders of the brain, the effects of immoderate application, are now to be the subject of our enquiries. They depend on three laws of the animal œconomy, which shall be ranged under so many heads.

§ 14. The first of these is that when the soul, from being employed a long time, has made too great an impression on the brain, it becomes unable to restrain it; the action continues involuntarily, and re-acting upon the soul, fills it with ideas truly delirious, because they are no longer answerable to the impressions of external objects, but only to the internal disposition of the brain, every part of which is unfitted to receive any new images conveyed by the senses. Spinello, a famous Tuscan painter, having painted the fall of the angels, gave such terrible features to Lucifer, that he was seized with terror in beholding them; and during the rest of his life thought himself haunted by that devil, who was continually reproaching him
for

for having represented him in so horrible a shape. M. Pascal, a man of an uncommonly strong mind, did so much injury to his brain by intense application and deep thought that he always imagined there was a gulph of fire near him; the constant agitation of some of his fibres conveyed this sensation to him perpetually; and his reason, subdued by his nerves, could never get the better of this idea. How many others are there who have been led beyond the limits of truth by an over-heated imagination? Gaspar Barloeus, an orator, poet, and physician, was sensible of these dangers, and often used to warn his friend Hughens of them *; but he was notwithstanding regardless of himself, and weakened his brain so much by excessive study, that he thought his body was made of butter: in this persuasion, he carefully avoided coming near the fire; till at last, wearied with continual apprehensions, he threw himself into a well. For these twenty years past I have regretted the loss of a friend, equally eminent in genius as well as character; a man calculated for great undertakings, whose studies were divided between literature and physic, which he certainly would have improved; he was employed day and night in reading, reflecting, and making experiments; he first lost his sleep, then was seized with some transitory fits of lunacy, and at length became quite mad, so that even his life was preserved with difficulty. I have seen other men of learning who have begun by being maniacs, and have at length become compleat idiots.

* He wrote the following advice to him: "*Nec literas, nec versus rescribere, ne in novum discrimen valetudinem dubiam adducas. Facile enim ex attentione incalescent spiritus, hinc sanguis, hinc habitus corporis.*" Barloei Epist. lib. 1. ep. 4.

I know a man, still more eminent by his virtues than by his high birth, who having applied himself for twelve successive hours to draw up a memorial of the utmost consequence, fell into a delirium after he had finished it, which lasted 'till his senses were composed with sleep.

There are many observations of the same kind extant; and I have been told by a man of veracity, that Peter Jurieu, so famous for his theological disputations, his controversial writings, and his commentary on the Apocalypse, had so far injured his brain, that although his judgment was still preserved in many instances, yet he used to affirm that his frequent colicks were caused by the fighting of seven knights shut up in his bowels. Others have imagined themselves to be lanthorns; and some have been known to afflict themselves upon the supposition of their having lost their thighs.

The disorders produced by the efforts of the mind fall soonest upon such as are incessantly engaged in the contemplation of one object; in this case there is only one part of the sensorium acted upon, and that is always on the stretch: it is not relieved by the action of the other parts, and therefore is sooner fatigued and injured. If one, or only a small number of muscles, is continually kept in motion, the body suffers more than if the same quantity of action was successively divided among all the muscles: it is the same with the brain; when its different parts act alternately, it is not so soon weary; the part at rest recovers itself, while the others are exercised: this change from labour to rest, is the surest method of preserving the organ. I have seen a woman who appeared very sensible till she was five and twenty; at which time of life she unfortunate-

ly attached herself to the Moravians, and was so possessed with the love of Jesus Christ, whom she called her lamb, that she could not admit any other idea; and without any other cause became an idiot in the space of a few months; in which state she had no other recollection but that of her friend. I saw her almost every day during six months, and could get no other answer to my questions than these words, "my sweet lamb;" these she repeated every half hour, with her eyes cast down. She lived six months in this condition, and then died of a * marasmus. But without going any farther for instances, we have lately seen a student at this academy, a young man, who having taken it into his head that he could discover the quadrature of the circle, died mad at the Hotel Dieu of Paris.

§ 15. The second law the human body is subject to, and on which many disorders of the brain proceeding from study depend, is, that the humours are more abundantly derived to any part which is in action. Mr. Morgagni knew a learned man at Bologna, whose nose bled whenever he happened to indulge in meditation before he rose in the morning †. When the brain acts, it receives an additional quantity of blood, which increasing the tone and motion of the vessels, produces that sensation of

* Too many instances of such dreadful infatuation, and even of more immediate suicide, from a supposed religious cause, might be referred to among the congregations of some modern sectaries here: and these events are the more melancholy, by augmenting the number of suicides in a nation, supposed to be generally more addicted to this crime, than any other people in Europe. But above all, the writings of some eminent free-thinkers have not a little increased what may be called the *English Malady*. K.

† De sedibus & causis morborum, cap. 3. § 13.

T.
pain

pain and heat before mentioned, besides other fatal distempers, according to the various dispositions of the brain, the blood, and the concurrence of other foreign circumstances. These distempers are, tumours, aneurisms, inflammations, schirrosities, ulcers, dropsies, head-achs, deliriums, drowiness, convulsions; lethargy, apoplexies, and the want of sleep, so frequently troublesome to men of letters, which if it lasts, is generally productive of various disorders both of the body and the mind. M. Boerhaave experienced this complaint for six weeks together, after a long series of intense thinking; and during that time was in such a state of total indifference, that nothing could interest him *. Every person must have experienced that uneasy kind of sleep which comes on after fatigue, and is attended with a troublesome sensation of tightness and weight in the head. A slight irritation of the brain is sufficient to cause an insomnium; a stronger irritation produces convulsions and comatose disorders; the most violent degree of it brings on an apoplexy; a kind of death too common amongst men of learning. They are punished in the part which has offended: the double injury produced by application, of weakening the brain, and determining a greater quantity of fluid to it, brings on at length the most alarming diseases, which generally manifest themselves when other circumstances concur in transmitting a great deal of blood to the head. Famous preachers and illustrious professors have often been known to expire even in their desks, which circumstance happened at *Leipfic* to the celebrated *Curtius*. *Livy* has handed down to us the story of king,

* *Prælectiop. ad Institut. t. 7. p. 145.*

Attalus, who, as he was advising the Bœotians to make an alliance with Rome, died in the midst of his discourse; and at Basil, in an academic ceremony held there, one of the candidates, who had previously fatigued himself by a long course of study, exerted himself still so violently during the ceremony in repeating his discourse, that he was seized with an apoplexy, and died instantaneously †. I myself saw a worthy clergyman, who after having preached on a Whitsunday a long time, and with great energy, was seized with a tremor while he was giving the sacrament, stammered, grew delirious, and then apoplectic; after which he grew childish, and lived for six months in that state. M. Morgagni speaks of a monk who died apoplectic in the midst of his sermon. Instances of this nature are frequent †: but the force of declamation is not always necessary to bring on apoplexies in studious men; they happen sometimes, when produced by no other cause than the disposition the parts have been wrought into by the kind of life these men lead.

M. Zimmerman supplies me here again with another very interesting observation. A Swiss clergyman having raised himself a great reputation by his discourses, was desirous of keeping it up: he therefore read much, composed with a great deal of care, and exercised his memory much to learn his sermons. By this continual attention of the mind he lost his activity by degrees, his strength wasted away, and the more he endeavoured to refresh his memory, the more it failed him. At length he could not possibly retain his new ideas, although he still preserved the remembrance of the old ones;

† Felic. Plater. Obs. p. 28. T.

and at last he was seized with an apoplexy, which made him paralytic on one side: he was carried to the baths of Baden in Switzerland, where he died, aged forty-two years.

A professor of Berne, well skilled in the oriental languages, a man still in the prime of life, and a very hard student, became simple and childish: the cause of this accident was water collected in different parts of the brain *.

In the Consultations of Wepfer we find the history of a young man of family, twenty-two years of age, who having applied himself incessantly to his studies both day and night, fell into a delirium, which soon degenerated into a phrenzy, in which first he wounded several persons, and killed his keeper †. Even the catalepsy, that uncommon disease, sometimes is brought on by too severe application; and Fernelius gives a very remarkable instance of it. "A man (says he) who passed whole nights in writing and studying, was suddenly attacked with this distemper; all his limbs stiffened in the attitude he was in when the disease first seized him; he remained upon his seat, holding his pen, and fixing his eyes on his paper, so that he was thought to be still at his studies, till being called to, and then shaken, he was found to be without motion or sensation ‡." Walking in one's sleep is another effect of the same cause. A student in physic at Leipsic, after having studied with prodigious earnestness for two months, entirely disordered

* Haller Element. Physiol. t. 4. p. 317. A very circumstantial and interesting history of this disease is to be found in the same work of M. Zimmerman; but it is too long to be inserted here.

T.

† Observat. de Affect. Capit. Obs. 85. p. 327.

T.

‡ Pathol. lib. 5. cap. 2. Oper. Omn. p. 406.

T.

his rest, so that as soon as he fell asleep, either in the night or day, he rose and sat himself down to study just as if he had been awake: he would look over his papers, take Castelli's Lexicon, search for some words in it, seemed displeased when he thought he could not find them, smiled when he imagined he did; then wrote in very legible characters, after which he went to bed again, and his sleep continued *.

Among the disorders which this great flow of humours causes in the brain, let us not forget that it contributes much to form that unhappy disposition which produces the hypochondriac affection; the fibres of the brain become weaker by being dilated, and are softened so as to be unable to support the different impressions; by these characteristics the nervous hypochondriac disease is pointed out.

§ 16. The third law of nature productive of other disorders arising from the labours of the learned, is, the induration of the animal fibre by exercise.

The whole body becomes hard in process of time, and old age itself is a general induration. In labouring men, those parts most used in their respective employments grow callous; in men of letters, the brain itself is attacked in this manner, they become incapable of connecting ideas, and grow old much before their time. In children the brain is too soft, in old persons too hard, and in the two extremes it is equally unfit to communicate the oscillations excited by thinking. Galen has rightly observed, that our memory fails first †, and forebodes the weakening of our reason.

* Bohn ap. Hallerthes. medic. pract. t. 7. p. 439. T.

† De loc. affect. l. 3. cap. 5. T.

§ 17. The nerves are not the only parts affected by deep thinking; for, as Gunzius has observed *, the weariness of the eyes is alone sufficient to produce nervous diseases. There is no one but must have experienced, as I have often done, how much the head is weakened by long attention of the sight. If after a fever or other indisposition, it should happen to me, before my strength is well recruited, to fix my eyes for a long time on any object, I am immediately seized with giddiness, sickness at stomach, and my whole body suffers a painful sensation of being fatigued and exhausted.

§ 18. I mean not to discourage people from study; I mean rather to be useful to students, in laying before them the dangers they are exposed to from immoderate application. Some, however, may imagine so, and may therefore undertake to defend it, by quoting examples of many learned men, who have arrived to an extreme old age, sound both in body and mind. I am not unacquainted with these instances, some of them, besides those I have read of, having fallen within the sphere of my own knowledge: but this privilege is not given to all; few men are so happily constituted as to support such laborious occupations without suffering for it; and indeed who can go so far as to say, that these would not have lived longer, if they had given themselves up to some other kind of business? It must be allowed indeed, that most of the greatest men human nature has produced, have lived to a very great age; such as Homer, Democritus, Parmenides, Hippocrates, Plato, Plutarch, the Lord Chancellor Bacon, Aldrovandus, Galileo, Harvey, Wallis,

* Ad libellum Hippocrat, de humorib. p. 211.

Boyle, Locke, Leibnitz, Newton *, Boerhaave; but can we infer from hence, that the labours of the mind carried to excess are not prejudicial? Such a conclusion is evidently false; although we may conjecture, that there are men formed as it were on purpose for these sublime indulgencies, and that the happy disposition of the fibres constituting great men, is perhaps the same which leads us on to old age. “Mens sana in corpore sano”

Besides, the immortal name these great men have acquired, seems rather owing to the force of their genius, than the assiduity of their labours. The leisure hours and avocations which must necessarily have attended men of such consequence, as well as the duties their situation obliged them to fulfil, were so many diversions, which repaired the injury they might have received from study.

These observations must certainly recall to your minds that respectable man, who lived during the space of fifty years the honour and the delight of this academy and this city †. His whole life had been employed in cultivating the several branches of literature; he had made himself a perfect master of those relating to his own profession, which was a very extensive department; and was also skilled in every one of the other sciences. A knowledge so comprehensive implied his having taken great pains, nevertheless his health was not in the least impaired; yet he lived to the age of fourscore and six years, without losing the power of his genius or the quickness of his understanding. Can this example be produced as an objection to what has been said? Certainly not; on the

* Newton outlived himself, if we may be allowed the expression, becoming perfectly silly and childish before his death.

† M. Polier Prof. in Catachesis, and oriental languages. T.

contrary, a more particular account of his method of passing his time, will induce you, gentlemen, to think he was a fit model to be proposed to the imitation of all the learned. His great learning never made him forget that he was a man: he acquired the knowledge of a great variety of the most abstruse sciences without neglecting the social duties, and fulfilled the offices of citizen, father, professor, friend, and member of society, as a man of the world whose time was not otherwise taken up. When his mind was wearied with application, he recruited it by moderate exercise in his garden: his behaviour in all circumstances was chearful and pleasant, a qualification not to be kept up but by mixing socially and benevolently with mankind. If we compare this with Mr. Fontenelle's manner of living, whose name stands one of the foremost among the list of such men of genius as have arrived to a very old age, we shall be convinced, that he could not have lived so long without any infirmity, if he had not blended the comforts of social life with his literary occupations. These lives were in nothing similar to those of the Eruditi, a race of men scarce known among the ancients, who first shewed themselves at the time that literature was in its decline, and appeared again at its restoration. These men, fixed to their work as the needle to the pole, might be compared to some of the Indian Fakeirs; for like them they seclude themselves from mankind; and mortify themselves oftentimes, without adducing the slightest advantage to society from their voluntary sufferings. The difference is only in the means they torment themselves with: the Fakeirs expose themselves to the scorching heat of the sun, and

and the most extreme severities of cold; they tear themselves with nails, chains, and whips; while the others destroy themselves with books, manuscripts, medals, antique inscriptions, and inexplicable characters; and especially in giving way to that total inaction of the body, which is the secondary, and unfortunately the too frequent cause of the diseases incident to men of letters, the dangers of which will be made evident from considering the structure of the human body.

§ 19. The human body is composed of vessels which contain fluids constantly circulating. When the vessels have neither too much nor too little power; when the fluids are of a proper consistence, and their motions neither too rapid nor too slow; then the body is in perfect health. But it is necessary to take notice, that the motion of the blood is what concerns us most at present. Whenever that alters, the other fluids and the solids are also changed: if it is too violent, the solids grow hard, and the fluids become thick; if too weak, the fibres are relaxed, and the blood is attenuated. The whole body is formed and preserved by the chyle, which is lighter than any other solid or fluid part; motion assimilates, unites, and inspissates its globules; and if by any means that motion should be retarded, the different parts of the body cannot acquire a degree of solidity and firmness sufficient for their several functions.

The heart is the first principle of motion; it gives the impulse to the whole mass of fluids, but is not of itself sufficient to keep it up; it has therefore been supplied by the Author of nature with a number of helps: whenever these fail, the circulation is slackened, and many disorders

orders ensue. One of the most effectual powers designed to assist in propelling the blood and increasing the action of the vessels, is muscular action. The common practice of giving a patient after bleeding something to be moved about in his hand, in order to accelerate the motion of the blood, is a sufficient proof of this; and one still more evident may be deduced from observing the effect of motion on the pulse. The chief advantages of exercise are, that it strengthens the fibres, preserves the fluids in their proper state, procures an appetite, facilitates the secretions, and especially perspiration, raises our spirits, and produces an agreeable sensation in the whole nervous system.

§ 20. On the contrary, the effects of a too sedentary life are such as destroy the strength of the muscles, and render them, for want of use, unable to bear action: the circulation, therefore, deprived of this considerable assistance, and carried on by the powers of the heart and vessels only, soon grows languid in the smaller vessels, and at length in the whole course of the body. Vital heat diminishes; the humours stagnate, and become vitiated; some are attenuated, others thickened, all undergo some alteration; and the secretions and natural evacuations not being well performed, the body remains loaded with excrementitious humours, the regular expulsion of which is the surest preservative of good health: the acrimony of these humours gradually preys upon the constitution, strength is dissipated, and the blood becomes watery; hence arises the dropsy, so common to men of letters, which sometimes attacks the brain, as we have before observed, and of which I have lately met with a fresh instance in a worthy magistrate, who
had

had ruined a strong constitution, not by study, but by labours of the mind of a more disagreeable nature, and by a sedentary life.

This effusion of water in the brain has been noticed by others. M. Van Swieten describes its effects with energy and accuracy. “Men
“ of letters (says he) who lead a sedentary life,
“ and sicken over their books, are on this account often exposed to an apoplexy, which
“ creeps upon them slowly and as it were by degrees. At first they become languid;
“ they delight in ease and indolence; their understanding grows dull; their memory decays and fails them; they then grow heavy,
“ sleepy, and stupid, and often remain long in this wretched situation before they die. It
“ has given me much concern to see learned men of the first class, who had been very
“ serviceable to literature, live more than a twelvemonth after the loss of their faculties,
“ forget every thing, and at last die of an apoplexy *.”

§ 21. The want of exercise produces its effects first upon those vessels which are naturally weak, and therefore require the more assistance to keep up the motion of the fluids in a proper degree of velocity; such are especially the viscera of the abdomen, designed for the important functions of digestion. The stomach grows feeble, the juices interservient to digestion secreted in it are altered, digestion is languid, troublesome, and imperfect, because the digestive powers being lessened, the food cannot undergo the necessary changes; on the contrary, they become putrid, as they would in any other place where they were exposed to the same de-

gree of heat and moisture. The vegetables deposit their * acid, which irritating the nerves, produces pains, cramps, a sourness, which brings on a perpetual sensation of heat at the pit of the stomach and in the throat, called the heart-burn, and the teeth are set on edge, &c. The fat grows rancid, the eggs and meats become putrid, from whence arise nausea, parching thirst, a slow fever, perpetual diarrhœas, a general debilitation, and a sensation of uneasiness not to be expressed. The saponaceous juice constantly exhaling from the small vessels of the stomach, not only loses its power of dissolving the aliment, but being itself inspissated, gluish, and hard, is collected into lumps, which destroy the appetite, and occasion a continual sensation of cold and weight in the part.

§ 22. The intestines, whose organization is the same as that of the stomach, are liable to the same accidents; and respiration, which when strong, during the act of inspiring, presses on the contents of the lower belly, and thereby assists the circulation in them; the action of respiration, I say, being greatly slackened from the want of muscular exertion, by which it is powerfully excited; these organs become weak, costiveness ensues; collections of slimy matter, common among learned men, are formed as in

* I must not omit observing, that Dr. Tissot is not discouraging his studious readers here from the use of vegetables, but only declaring the bad effects of too intense and unremitted study, without sufficient corporal exercise, be their diet what it will: and yet in fact a considerable proportion of vegetable food (when there is no strong antipathy to, nor consequent disorder from vegetables) seems highly proper for those, whose inactivity and debility render their stomachs less adequate to a proper comminution of more fibrous and tougher animal food. It will be a very salutary caution to observe in such circumstances, that their vegetables should be boiled rather very well, than very fashionably,

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the stomach, from whence many diseases are derived. This happened to Justus Lipsius, professor of history, who tho' advised by his friend and colleague the celebrated Heurnius, yet he suffered for a long time, and was not cured till he had voided a mass of the form and colour of the intestines. It was a kind of gluish viscid substance, formed by his sedentary life, which had gradually filled up the intestinal tube; and becoming putrid, had disordered the whole animal œconomy; but the cause being destroyed, the patient was soon restored to health *. The excrements thus heaped up, press upon the neighbouring parts by their bulk, irritate the intestines by their acrimony †, and infect the whole mass of fluids by their putrefaction: from hence those excruciating colicks, the torments of learned men, which are the more difficult of cure, as they are incessantly renewed by errors in diet ‡: from hence those flatulencies, the constant attendants of sedentary persons, which bringing on a variety of symptoms, may sometimes be mistaken for other disorders.

§ 23. The stomach and intestines are not the

* *Adam vitæ medicorum*, p. 372. Fernelius takes notice of a disease exactly similar to this, which attacked a foreign ambassador at Paris, who was cured, as Justus Lipsius was, by evacuating a prodigious quantity of hardened slimy matter. T.

† From good authority, the following fact came to hand: A young person of a studious disposition, and who, during study, sat much inclined, and on a low seat, died after three years complaining of colicks, &c. upon opening the body, there was found a considerable collection of hardened fæces in the caput coli, the whole of the adjoining intestines in a morbid state, and several calculi in the gall-bladder.

‡ In the *Journal de Médecine*. t. 1. p. 352, we find a very interesting account of a severe colick, caused by application and continually sitting up at night, and which returned very frequently. T.

only suffering viscera of the abdomen; the rest being in the same state of inaction, are liable to similar complaints. The pancreatic juice thickens and becomes useless; the functions of the spleen are disturbed; and the organs, which secrete and prepare the bile, are entirely disordered; the bile stagnating obstructs the liver, becomes inspissated and hard, is no longer conveyed into the duodenum to assist in secondary digestion, the chyle stagnates in the smaller intestines, is vitiated, and these parts become the seat of the most alarming disorders. The portion of bile inclosed in the gall-bladder, in order to go through another process, which makes it of greater efficacy, thickens in the part, and forms calculi, commonly called *gall-stones*; from whence proceed the most excruciating colicks *, which admit of no cure till the stones can pass into the bowels, and be carried off by stool. When they are either too large to pass through the ductus choledochus, or that the necessary propelling powers, or the circumstances requisite to facilitate their issue are deficient; or when they are situated in parts from whence they cannot find a passage, as it happened to St. Ignatius Loyola, who had them in the vena portarum †, the afflicted persons must suffer throughout the course of their lives, and at last expire in torments. If, instead of growing hard, the bile should putrify, it acquires an excessive degree of acrimony, which irritates, gnaws, inflames, and ulcerates all these organs, and is productive of the most terrible diseases,

* Vide Tissot on the Diseases of People of Fashion, § 116.

Instances of these calculi are so frequent, that every practical anatomist can give many remarkable cases from their own experience.

† His body was opened by Columbus the famous restorer of anatomy, Ven Swieten, vol. 3. p. 87.

inasmuch as they are accompanied with the most violent agonies; so that I have seen men of letters, possessed of the strongest resolution, reduced by them to a state of desperation they were ashamed of, in moments which afforded them some little respite.

§ 24. The hypochondriac disease may also be reckoned among the evils learned men are exposed to from that kind of inactive life, which disturbing the circulation in the abdominal viscera, produces obstructions in them. This complaint is of two kinds; one entirely nervous, which we have before observed to be the effect of attention; another, wherein the contents of the lower belly are all stuffed up, and the powers of digestion disordered. The constant cause of this is a life of inactivity; and we may easily account for the frequency of these diseases among men of letters, from supposing a concurrence of these two causes, which will also render them less susceptible of a radical cure *. Instances of these cases are so common, that it may be needless to adduce any: if, however, one should be expected, I shall produce that of Swammerdam, that accurate observer of nature, who was so tormented with an atrabilious complaint, that he scarce gave any answer to those who asked him questions; he only looked at them, and remained motionless. When he got up into his desk, he was oftentimes fixed and astonished, as if he had been speechless, and took no notice of any objections made to him. Not long before his death he

* *Ci dimostra l'esperienza che i letterati ben che fossero di giovanile temperamento, ciontano a lungo andare fissi, taciturni, pallidi, macilenti & stranamente vessaghati da passione ipocondriaca, tranna consueti di gente stazionaria.* Anton. Felici *Dissertationi Epistol.* p. 203.

was seized with a melancholy madness, and in one of the paroxysms burned all his writings; he at last perished, thin and dried up as a skeleton, scarce preserving the appearance of human form *.

It has been long since observed indeed, that this kind of melancholy may be useful to learning, because melancholy persons, being fixed to one idea, are able to consider the same object in all its views, and without having their attention diverted. But can any man be so far out of his senses, as to wish the perspicuity of his judgment to be increased by such means? Learning, when exchanged for health, is certainly purchased at too high a rate; and science becomes useless if it deprives us of happiness.

Nature indeed has provided some men with such athletic stomachs, strong nerves, and as it were bowels of iron, that they can bear the labours of the mind, and a sedentary life, and can indulge in all kinds of excess without disordering their digestion; but they are not exempt from other diseases; their vessels are filled with too great a quantity of blood; the cells containing the fat are choaked up, the internal parts are compressed on all sides, and they become heavy and slothful; they are thrown into a sweat by the least motion, and are soon out of breath; they die at an early time of life, either by an apoplexy, a suffocating catarrh, or some one of the many diseases occasioned by a plethora; so that it has been justly observed, to be oftentimes an inconvenience to men of letters to have too strong a stomach †.

§ 25. A sedentary life weakens the whole

* Boerhaave *Prælect. ad Inst.* § 896. t. 7. p. 275. T.

† This observation is of *Lancisi de Mort. Subitan.* lib. 1. cap. 22.

system of the animal œconomy. When the blood is once in a vitiated state, it injures, sooner or later, all the parts it circulates through. The lungs, whose substance is extremely delicate, the first part to which the chyle is conveyed, and through which the whole mass of blood passes, in order to undergo some important change, soon feel the effects of the depravity of this fluid; heats are felt in the breast, pains between the shoulders; a cough, and troublesome spittings come on; the lungs are filled with a tough viscid substance, which forms obstructions, and often brings on an asthma; inflammations, suppurations, and abscesses are formed, and a hectic fever ensues. The famous Triglandius, after having suffered great pains, died of an abscess in the lungs, proceeding from a cachectic disposition his studies had brought him into, and which could not be removed, even by Mr. Boerhaave's care and attention *. Swammerdam used to spit up small stones long before his death, and his lungs were found full of them.

§ 26. Intense study produces also the stone and other diseases of the bladder †. Heurnius, Casaubon, Beverovic, Sydenham, and many others, are melancholy instances of this; and no body is unacquainted with the sufferings which the illustrious ‡ antagonist of the sciences is exposed to from complaints of this nature.

* *Marekii Orat. funebr. in obitum Triglandii* Leip. 1705.

† Many disorders arise from too long a retention of urine, palfies of the bladder, inflammations and other disorders of its sphincter; and as we see that in a great number of people, a calculous crust is formed in their urinal; may we not reasonably suppose the same thing to take place in the bladder, when from long retention, and their inactive life, a separation is allowed to take place; which would not have happened, had they by exercise, or more frequent evacuation prevented it.

‡ This probably is intended for Mr. Rousseau.

§ 27. Another fatal consequence of a sedentary life, is the lessening of insensible perspiration, the preservation of health depending much on the regularity of this copious and important evacuation. The vessels through which it is conveyed, are small and weak, very distant from the heart, and much exposed to external injuries. It must therefore necessarily be interrupted, unless the circulation is assisted by muscular action, and unless that power is sufficiently exercised to enable the vessels to propel their fluids in such a manner, that the secretions may be properly prepared and expelled through the respective outlets nature has appointed for that purpose. As soon as this perspiration becomes obstructed, the redundant humours it should have cleared the body of are retained, corrupt the mass of fluids, deposit themselves upon some organ, and produce pains and fluxions. From hence also that phlegm so common to the learned, of which Horace complains so much, which, after reading for a long time together, often produces coughs and stoppages of the nose, more or less troublesome; and lastly, irregular fevers are brought on, not to be traced from any other cause, of which Galen has preserved a remarkable instance in the case of Premigenes: “ This famous Peripatetic philosopher, who passed all his time in writing and reading, and whose perspiration was therefore defective, was seized with a febrile paroxysm every day when he neglected to bathe; but the bath carried off this acrid humour, which when kept in occasioned the fit *.

§ 28. We have seen that the nerves are im-

* Galen de sanitat. tuend. l. 3. cap. 11.

mediately affected by the labours of the mind; inactivity is also sufficient to destroy them, and often produces this effect, even in persons whose mind is as indolent as their body. The nerves are the principal parts of the machine; whenever any of the animal functions are disturbed, they must undoubtedly be injured. When I have seen the nerves affected without any sensible cause, I have often been led to suppose that some disease would soon appear, the source of which might possibly be discovered by attentive observation, and be the more easily destroyed before the disease had come to any height. Some disorders, of the stomach, especially shew themselves more readily by the effects they have on the nerves; for they being a kind of medium * between the soul and the body, are exposed to suffer from the irregularities of each, and communicate to the one the injuries they receive from the other: thus it is that the soul becomes prejudicial to the body, and the body hurtful to the soul, and that they are both combined in destroying the nervous system.

§ 29. The feminal fluid which many great men have thought to be similar to the nervous juice, partakes of the general disturbance, and loses much of its active power. If we argue from this position, and consider at the same time how much each part of the father contri-

* Doubtless these cords, with their impalpable contents, constitute the nexus, the immediate link, of this further impenetrable union of mind and matter; whence their reciprocal influences arise, and thought itself is materialized into an object of sight, and communicated by sound. The continual instances of this amazing hypostasis seem, among the vulgar, to have annihilated this unvealable mystery; so that, as one of our dramatic writers expresses it, "prodigies, from their frequency, have lost their name."

butes to the formation of the son, we may perhaps find out the reason why it so seldom happens that men of great learning are blessed with children worthy of their parents. The animated particle which Harvey calls *the punctum saliens*, does not open itself in the first instance with sufficient strength; the effects of this primary weakness are carried through life; and the impression falls more distinctly upon the organs of thinking, in as much as the father's brain has not allowed this vivifying fluid to be prepared in such a manner, as to communicate sufficient force to the son's.

§ 30. The causes which destroy the digestions, exhaust the nerves, impoverish the blood, and disturb all the evacuations, must inevitably bring on a loss of strength, and this is another effect of intense application. When H. Briggs published his tables of logarithms, it was his intention to go on with them; but the attention of his mind had so totally debilitated his body*, that he could never recover. "Although," says M. de Fontenelle, M. de Varignon's "constitution seemed likely to resist any labour whatever, yet the assiduity and intenseness of his application brought a heavy disease upon him; so that he was dangerously ill during six months, and remained for three years in a state of consumption, which was evidently an exhausting of the spirits †." Others fall into such a general relaxation, that their flesh becomes soft and flaccid, their pulse feeble, their gums so loose that the sound teeth fall out of them without pain. If in this state of weakness acute diseases should come on,

* Saverien *hist. des. progr. de les pr. humain*, &c. p. 460.

† Dans son *elogé*, *œuvr.* t. 6. p. 94.

they will be attended with so much the more danger ; and a celebrated English physician has observed, that acute diseases of the mildest nature to other persons, were sometimes fatal to men of letters *. Want of strength makes the progress of a fever irregular, hastens the putrefaction of the humours, confuses the brain in the beginning of the disease, prevents the operation of medicines, disturbs the regular formation of a crisis, and the patient, deprived of his natural powers, can no longer be assisted by those of art. I have lately seen a melancholy instance of this, in the case of our worthy rector whom we have lately lost † ; who, if the wishes of the public might have prevailed, would have lived to a very advanced age, but whose constitution was ruined by study. The first appearance of his disease was attended with such an excessive debility, that even then I despaired of his recovery, and foresaw the irreparable loss which religion, virtue, the church, his country, his afflicted family, and the youth of this academy, have lately sustained : what a man, gentlemen ; what a colleague ; what a friend has been taken from us ! Like to the Roman of whom Pliny has given us a description ‡, his life was pious : he was scrupulously nice in fulfilling all his duties, how extensive soever they were : he was unchangeably benevolent and mild ; respected, but not feared ; for though an enemy to vice, he knew not how to hate the person who was guilty of it : he was deeply learned, very eloquent, and there was a great deal of matter in his dis-

* Morton de variolis, cap. 6. oper. omnia, p. 382.

† M. J. Alph. Rosset, professor of divinity, and made rector a few months since.

‡ Euphrates, vid. Plinii Cæcilii, epist. lib. 1. epist. 9.

courses : his style was soft, fluent, diversified, and marked with that sublimity which subdues the heart, and engages the passions: during his life he was universally esteemed, and is now most sincerely and painfully regretted. But it is time to resume my subject.

§ 31. Attention of the mind and inactivity of the body are the two principal, but not only causes of the disorders incident to the learned : others are still to be pointed out ; and the first which offers itself to my consideration, is the * attitude of a man at study ; an attitude, which cannot but be prejudicial to health. The folds the vessels are thrown into at the top of the thigh and in the bend of the knee, while a man is sitting, interrupt the circulation in the lower extremities, which in process of time must necessarily suffer from this circumstance ; the bending of the body constrains the abdominal viscera, disturbs their functions, and the digestive powers are disordered from a new cause ; the stomach being often compressed, is more particularly injured, and this irritation, together with what it suffers from the tension of the brain, and from want of motion, makes learned men more liable to the disease commonly called *the heart-burn* †. The blood a-

* This considerable inconvenience of an unhealthy attitude may be palliated, or lessened, by walking at intervals, while a studious person thinks, which does not always retard thought : and by reading and writing, sometimes, in a standing posture, at a desk, which may be raised to different and commodious heights, by a screw, round which it turns. This is much adopted at present by people of business who have much writing ; their desks are high, and their seats so, that they may almost be said to stand. I know several, who, when reading, for the most part walk about their study.

† Arætaus, Cælius Aurelianus, and Ætius, have before observed, that this was a disorder common to the learned. See especially a valuable dissertation of M. Richter's *De Cardiaglia*, Goetting. 1750.

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scending with difficulty through the veins of the lower belly, accumulates in the hæmorrhoidal vessels, where its own weight carries it, and where it meets with the least resistance; for this reason the learned are so frequently tormented with the piles, a fatal disease; which has been for a long time considered as a useful evacuation, carefully to be kept up; but the dangers of which have been at length exposed by some eminent physicians *, and I have also taken notice of them in another work †. They have sometimes proved salutary, as all other hæmorrhages have; but are so very dangerous, that when any patient is likely to be afflicted with them, it behoves every prudent physician to endeavour to prevent them; in which attempt I have often been happily successful.

§ 32. Night-watchings may be considered as a fourth cause of the diseases incident to the learned; they are hurtful to them on several accounts.

1st. A man who has laboured all day, certainly works too hard, if his labours are continued through a part of the night.

2dly. The time allotted to sleep is by this means too short, and therefore not sufficient to restore us.

3dly. Sleep, which comes after long attention of the mind, is never quiet and calm, it falls short of the effect it should produce, because the fibres of the brain continue their oscillations; we are not able to get rid of our thoughts, and therefore cannot rest: and if sleep should steal upon us, it is rather a kind of slumber, during which our ideas fatigue us without be-

* Vid. Mr. de Haen's excellent dissertation, *Theses pathologicæ de hæmorrhoidibus*, Viennæ 1759.

† Epistol. Zimmermanno, p. 19, &c.

ing useful, than an entire lulling of the senses denoting a sound sleep. The ancients, more prudent than we are, were better acquainted with this danger, and therefore judiciously divided the time between business and recreation; they seldom employed their evenings in serious * occupations: and Asinius Pollio, that famous Roman consul and orator, who first formed a library at Rome, was so well apprized of the dangerous consequence of studying at night, that he would not even read any letters after the tenth hour; that is, two hours before sunset †.

4thly. The laws of nature are subverted by nocturnal labours, for nature seems to have allotted the beginning of the night to rest; she seems to invite us to sleep by the temperature of the air, which is then more damp, more cold, and less wholesome, by the darkness and silence which prevails, and by the example of all living beings. Most animals feel a diminution of strength at the setting of the sun, and generally give way to sleep till it rises again, restoring salubrity to the air: several plants pass into a state which has been rightly called their sleep. Shall the man of letters then divide the business of the night with villains and wild beasts?

The dangerous effects of night air are so evident in some persons, that M. Van Swieten

* This is also the prudent conduct of many modern and temperate writers, as they may be termed, whose works are probably the more correct and better digested, for not being too voluminous. The moderate exercise of such in the afternoons, and the temperate relaxation of their evenings, must very generally conduce to their more sound and refreshing sleep at nights; and thence render them the more alert and adapted to study in the succeeding mornings. K.

† Seneca de tranquillat. anim. cap. 15.

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knew a man troubled with the gout, who could not read even a letter after sun-set without hastening the fit. It is as dangerous to meditate in bed, as it is to go to bed too late. I have already observed, that meditation determines a greater quantity of blood to the brain, and in this case the circumstance is facilitated by the horizontal position of the body; it is increased by sleep coming on, and therefore this organ must unavoidably be injured by this bad custom, as all the body suffers for want of sleep, the consequence of literary watchings. We grow weak and are seized with violent head-aches, the nerves are tired out, their motions become irregular, our ideas are confused, and we fall into a real delirium, which might perhaps be relieved by quiet and sound sleep, if in such a state we could expect to obtain it. Sleep, when disturbed, is restored with more difficulty than any other of the animal functions: we lose it with cheerfulness, and regret the loss of it, almost always in vain, with sorrow. I have now a letter just received from a lady fifty years of age, who begins the account of her complaints in this manner: "I was born with a
 " good constitution; but in my earliest youth
 " have passed some part of the nights in read-
 " ing, I found myself at the age of eighteen
 " in a state of dejection, which laid the foun-
 " dation of my disorders: I was seized with
 " defluations, &c. and was disturbed with want
 " of sleep, often troublesome to me at this day,
 " and the effects of which I have ever felt."

5thly. The oily vapours arising from the candles we use to give us light, contribute still to increase the danger of studying at night, by corrupting the air, and making it equally pernicious to the eyes, the nerves, and the lungs:

if

if we burn wax the danger is not so great, although it still subsists to a certain degree.

§ 33. The confined air men who live among their books, constantly breathe, is a fifth cause, not sufficiently attended to, of the evils to which they are exposed. A pure, open, country air is very refreshing, facilitates breathing and perspiration, gives strength, and enlivens the whole machine. Every individual must have felt the truth of these assertions, and must therefore be sensible how very useful such kind of air would be to men of letters; but instead of enjoying the benefit of it, they generally live in an atmosphere, which being seldom renewed, is dense, full of vapours, and inelastic; by this they are heated rather than refreshed, become heavy instead of being animated, and are more relaxed than strengthened: besides that, this air, instead of promoting, obstructs perspiration, and thereby increases the bad effects proceeding from the other causes prejudicial to the learned. Not to renew the air of one's room, is to live in the impurities of the preceding day, and yet what hard student is there who thinks of letting fresh air into his chamber every day?

§ 34. This neglect, so frequent among the learned, with regard to the air they breathe, extends sometimes to their persons. I have seen some who attended so little to cleanliness, that the sight of them was nauseous, and who thereby exposed themselves to all the diseases proceeding from filthiness, which may be a sixth cause more dangerous than it is commonly supposed to be *, and one of the most pernicious

* One of the greatest physicians Germany ever produced has given us a very excellent dissertation on this subject, J. Z. Platneri dissertatio de morbis ex immunditiis, Lips. 1731, opusculi 1. p. 70.

effects of which is the lessening of perspiration. Even the uncleanness of the teeth, which is so common, is also troublesome and dangerous. If they neglect cleaning them, a thick and foetid tartar is collected about them, from whence proceeds a nauseous smell extremely disagreeable to those who come near them, and which depraves their own saliva, spoils their gums, causes frequent fluxions, sharp pains, inflammations, abscesses, ulcerations all over the mouth, and at last brings on the loss of their teeth, by which their stomach is deprived of the assistance of mastication, so necessary to every one, and more especially to the learned, who are subject to bad digestion; and who are already very liable to suffer from the bad custom some of them have of reading at meal-times, and of sitting down to business immediately after.

§ 35. This seventh cause, from the inconveniences of which few who venture to expose themselves to them, can be exempt, is one of those which soonest attacks the stomach. The influence of the nerves is so necessary to carry on digestion, that if we tie the nerves going to the stomach in an animal, the food putrifies without being digested *: so when the soul is so taken up that it suspends the distribution of the animal spirits to the stomach at a time when they are most wanted, digestion must necessarily be imperfect; the food remains there a long time and is ill prepared, so that a great quantity of air is set loose from it, which irritates this viscus, swells it, and leaves it still weaker after this enlargement. Xilander, in his excellent letter to Plempius upon the diseases a magistrate is exposed to from his profession, has

* Halleri oper. minor. t. 1. p. 359.

been well apprised of this, and expressed it in a manner suitable to the theory of the times, when he says, "that those persons who sub-tract continually from the heat of the stomach, to keep up the functions of the soul, cannot digest their food *;" and Plempius in his work observes the danger of this bad custom †; neither has it escaped the notice of any of the physicians, who have written upon any part of diet, more especially such as have chosen to treat of that kind of diet suitable to those who cultivated the sciences.

§ 36. This thirst after knowledge, equally ridiculous and blameable, which will not spare the time necessary for eating and drinking, brings on another indiscretion, attended also with bad consequences, and which I reckon as the eighth cause of the diseases incident to the learned; this is the bad habit of keeping in the urine a long time, and deferring going to stool. These excrements, when too long retained, become putrid, irritate the intestines or the bladder, vitiate the mucus secreted in them, and make them become the seat of the most painful disorders. The small vessels all the cavities of the body are filled with, and absorb the putrid particles, which being conveyed into the mass of blood, corrupt it; and what is perhaps still more fatal, the nerves after a while cease to do their offices when called upon: oftentimes even extreme tension makes them paralytic; then the bladder and intestines have no longer the power of expelling the urine and the fæces.‡, unless assisted.

* We find this letter in 1662 at the beginning of Plempius's work *De Togatorum Valetudine Tuenda*.

† P. 110

‡ Galen was well acquainted with this disease and its causes: and tells us that he has known many persons who had lost the

assisted by art. At other times a disorder appears, seemingly of an opposite nature, although it proceeds from the same cause, and varies from the former only as the palsy is fixed on a different part of the bladder; this is an incontinence of urine. I have been consulted by several patients, who, from having kept in their urine too long, had lost the power of retaining it, so that it flowed from them incessantly; and this is certainly one of the most disagreeable inconveniencies, both to one's self and others, it is possible to be afflicted with. This painful retention may be attended with more serious consequences when continued too long; for every one knows the unhappy end of the immortal Tycho Brahé, who being in a coach with the emperor Rodolph the Second, from whom he received particular marks of favour, retained his urine too long, and forfeited his life by this respectful false shame.

§ 37. I shall not scruple to mention as the ninth cause of diseases incident to the learned, the secluding themselves from society; a task many of them are willing to impose upon themselves at first, and which they give way to afterwards from inclination, although attended with many real inconveniencies. Men were created for each other; their mutual association is productive of advantages not to be given up without suffering for it; and it has been very properly observed, that solitude brings on a consumption *. Nothing can contribute more to

power of making water from having retained their urine too long, either through absence when they were busy, through neglect, or through decency when they were at church, in the senate, at the bar, or at meals. De Symptom. Causis. lib. 3. cap. 8. & De Loc. Affect. lib. 6. cap. 4. Charter. t. 7. p. 98 & 515.

* Cicero de Officiis, l. 3. cap. 1.

health

health than chearfulness, which is animated by society, and damped by retirement; and this moral cause of weariness, added to the physical causes abovementioned, often throws the learned into a melancholy, as fatal to their health as chearfulness would be beneficial to it: it brings on a misanthropy, a fretful temper, a spirit of discontent, and a dislike to every thing, which may be considered as the greatest of evils, since they deprive us of the enjoyment of all that is good.

§ 38. Having pointed out the most general causes of the diseases men of letters are exposed to, I shall now take notice of those which arise from the particular object of their attention, and of those which are peculiar to certain organs. Anatomists have often violent * fevers, brought on by the infected air they breathe, and are subject to the disorders which proceed from a corruption of the bile. The blood of dead bodies, in which their hands are constantly soaked, often makes the smallest † wound or the

* Fevers from this cause, I think, are generally of the putrid kind, and not remotely different from the jail or camp-fever. I knew a most eminent and assiduous anatomist, who was infected with one of them, from the causes Dr. Tissot mentions, and who did not recover his former health and his usual plight, which was naturally thin and delicate, for several, I believe for near six months, from the invasion of it. It was said, I remember, that he underwent many evacuations, particularly bleedings, in the process of this fever, which I confess I should have judged neither correspondent to the cause of his disease, nor to his own habit or constitution. The intention of these discharges was probably to obviate an inflammation: but the zeal and amity of his many physical friends seems to have rendered them very careful not to do too little for him. K.

† I have seen a strong instance of this in an eminent surgeon, who having a slight scratch on the middle finger of his left-hand, contracted so very painful and dangerous an infection in it, from the dissection of a morbid uterus, that a speedy amputation

the slightest scratch fatal to them. Chymical experiments are also dangerous; several chymists have lost their lives by them; and M. Boerhaave himself would have been suffocated by an acid vapour, if he had not been immediately relived by an alkaline spirit, which happening luckily to be near him, this vapour counter-acted the acrimony of the first, and quieted the spasm it was beginning to produce in the lungs. Some botanists have perished while they were searching for and examining plants; but these accidents belonging more properly to the diseases of artists, I shall go on to those which are more immediately inflicted upon some of our organs by study.

§ 39. The eyes, of which I have already spoken, are among the organs most exposed to injuries. The continual fatigue they undergo, irritates them; sometimes the eye-lids and outward parts of the eye are inflamed; more frequently the nerves alone are attacked, without any perceptible external defect. I have seen several men in the prime of life, whose eyes were become so exceedingly irritable, that they could no longer bear the light, and were obliged to live and read in rooms so darkened, that I could scarcely distinguish letters of the largest stamp in them: candles especially, which are very inconvenient on account of their smoke, and unsteady flame, they could not bear; neither could they suffer long the light of a slender

putation of it was judged necessary, to prevent its further ill consequences, which were very acute and menacing. K.

The late Dr. A. Monro, when a student, met with a similar accident, the effects of which, seemed so alarming, that the amputation of his arm was proposed, but which he would not consent to: it healed, though slowly; but he bore the marks till his death.

wax taper. Others, when they have read a few pages, have their eyes full of tears, cannot see clear, and soon after cannot distinguish any thing. Disorders of the sight, produced by an excessive mobility of the nerves of the eyes, whether proceeding from too much reading or from any other cause, are very different and singular: I have collected many interesting observations upon this subject, which will take place more properly in another work. I shall therefore conclude this article with observing, that men of letters often imagine they have sparks before their eyes; of which complaint M. Zimmerman, who has once been subject to it, has treated very largely, and with great skill, in the work I have before quoted several times. This sensation takes place whenever the mobility of the optic nerves is arrived to such a pitch, that although they are not affected by the external impression of fire, yet, in consequence of the disordered state in which they are, they experience the same lively sensations and motions as the presence of that element would really create.

§ 40. Orators are also exposed to fatal diseases produced by their profession. Reading loud sometimes does the lungs good; I have even prescribed it with success in some disturbances of the digestive powers; but a forcible and continued declamation, during which respiration is continually interrupted, is very hurtful to the lungs, irritates, heats, and inflames them. From hence arise hoarseness, loss of voice, heat in the breast, a cough, spittings of blood, suppurations, hectic fevers, a general debility, and at length a consumption: thus these useful men disappear, as a lamp which has only shone to give light to others. Cicero was threatened.

threatened with these complaints; the physicians apprized him of it, and advised him to quit the bar for two years: he followed their advice; rest soon strengthened him, and restored him to that health which labour had impaired.

We have most reason to be concerned for preachers, who have no other duty in the church than that of repeating their sermons; and counsellors, whose business consists entirely in drawing up the proceedings of a law suit, and afterwards in pleading. These men destroy their healths in two ways; first, by assiduous application, as other men of letters; and secondly, by declamation, which they must be the more affected with, inasmuch as their lungs, accustomed to that languid circulation, the consequence of a sedentary life, are little able to support such powerful exertions.

§ 41. Great actors are liable to the same diseases as orators are. The famous Moliere died of a spitting of blood, after having acted in one of his own comedies with a great deal of spirit; others have had the same fate, after a laborious part in a tragedy.

Musicians especially, often die of complaints in the breast; and after death we frequently find their lungs inflamed, suppurated, and ulcerated. M. Morgagni has seen a young man who was thrown into a phthisis, by too frequently exercising a very fine voice: the ulceration of the lungs extended from the trachea to the larynx and throat; and he was suffocated in attempting to swallow the yolk of an egg*.

Curates and priests are much less liable to mischiefs than preachers and pleaders at the

* De Sedibus & Causis Morborum, t. i. p. 228.

bar, because those among them who chuse to cultivate the sciences, are prevented from carrying this passion to an excess, by the duties of their calling, which forces them to quit their studies. Physicians have the same advantages; and the care they are obliged to take of the health of others, prevents them from destroying their own. In short, happy are all such learned men, who are called away from their books by the duties of their profession; their body is exercised; and although their mind is oftentimes still at work, yet this variety of labour is itself refreshment.

§ 42. Declamation sometimes brings on an accident which is the consequence of the too great compression the intestines are incommoded with during long inspirations; these accidents are not unattended with danger, although they are not so alarming as disorders of the breast; I mean herniæ or ruptures, which men who speak in public are often subject to. They may indeed be kept up by bandage, which is indispensably necessary whenever they have made their appearance; and without which the persons afflicted with them would be exposed to the most fatal consequences, whenever they attempted to speak with energy.

§ 43. These are the principal diseases brought on by too intense an application to study; but we must not suppose that all persons who give themselves up to these excesses suffer exactly in the same manner, or in the same degree: the variety of constitutions and ages, and the different concurrence of foreign circumstances, produces considerable alterations in the effects, which it may not be improper to take some notice of.

§ 44. Few men are so perfectly formed, that the

the forces of their respective organs should be in exact proportion to each other ; some part or other is generally weaker than the rest : the weak part commonly suffers first, and receives the most violent shock from immoderate application, as well as from all other excesses.

If the stomach is bad, either naturally or from errors in diet, this organ will be affected by the exercise of the mind, while the nerves shall remain in a sound state ; on the contrary, if the nervous system is weak, and the stomach strong, nervous diseases of great importance will be brought on before the stomach is injured.

If the muscular fibres are too much relaxed, lassitudes, numbness, extreme weakness, and swellings, will come on before either the nerves or the stomach are attacked.

Persons who have weak lungs will be seized with the disorders of the breast before-mentioned, and be consumed by a phthisis and hectic fever, without having experienced any complaints in the other viscera.

If the vessels of the head are weak, continual head-achs and frequent bleedings of the nose come on, to which young people who are hard students are very subject, because application, as I have before observed, forces the blood up into the head.

Even the strength of the constitution is itself dangerous. Young people of excellent constitutions apply themselves to study with indefatigable industry ; the powerful action of the soul increases that of the other organs, and they are attacked with inflammatory diseases, the consequence of irritation long kept up in vigorous habits. Sometimes they expire in the first attack ; more commonly they get the better of that ;

that ; and if they find themselves perfectly restored, their constitution recovering its vigour, they give themselves up again to the same labours, and relapse into the same disorders. There are frequent instances of robust young men close applying to study, who are attacked with inflammatory fevers every year : at last, in process of time, being worn out by these attacks and by their labours, they lose their strength, and are seized with consumptive diseases, against which they are no longer able to resist.

§ 45. Study also produces various effects, according to the different times of life in which we apply to it, and is particularly fatal to infancy. I have known very sensible children seized with this literary kind of phrenzy, unsuitable to their age, and have foreseen with concern the fate which attended them : at first they are prodigies, and in the end become idiots. Exercise, which strengthens the body, is suited to this age rather than study, which weakens it, and stops its growth. Nature cannot successfully lead on two such swift progressions together. There are examples of children who have grown up wonderfully fast ; and the last Memoirs of the Royal Academy of Sciences speak of a child of the province of Languedoc, who at six years old had attained to the height of a tall man. But in these remarkable cases the mind remains ever in a state of childhood ; and even the premature forces of the body, which have acquired no solidity, decay with as much rapidity, as they had before advanced ; so that these prodigies die at twelve or thirteen years of age. When the progress of the understanding is too quick, that the genius manifests itself very early, and a degree of applica-

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ation suitable to this progress is allowed, the growth of the body is impeded, because it is unassisted by the nervous influence, the strength is exhausted, and an early death succeeds, after the body has suffered many painful diseases. M. Phil. Barratier is a well known instance of this kind : “ At eight years old he understood
 “ Hebrew, Greek, Latin, and French, perfectly well, besides German, which was his
 “ native tongue ; at seventeen years of age he
 “ was the most learned man in Europe ; but
 “ from his earliest infancy he had ever been
 “ subject to fluxions, and other slight indispositions. At eighteen he was seized with a
 “ cough, and in the course of the same year,
 “ with an infinite number of other diseases ; he
 “ lost his appetite and his sleep, and at length
 “ wished for nothing so much as to be released
 “ from all his sufferings, which happened to
 “ him at the age of nineteen years and a few
 “ months.” “ I have seen (says M. Boerhaave,
 “ a young man whose knowledge was universal ; he was a prodigy of erudition, but did
 “ not live to the age of five and twenty years ;
 “ and another, extremely learned also, who
 “ studied day and night, and who died in a
 “ decay at the age of nineteen, without any
 “ certain symptoms of any disease *.” We have also seen one of our fellow citizens, a man born with uncommon abilities, whose active and penetrating mind gave itself up entirely to reflection and study, at a time when he should have been acquiring strength ; by these means he was reduced, during several years, to the most dangerous and miserable state of languor : an uncommonly severe diet, and an interrup-

* Prælect ad Institut. § 1056. t. 7. p. 346.

tion of his studies began to restore him to health ; he then unfortunately forgot that his constitution was delicate, and perished in the prime of life, a victim to the labours of his mind †.

In my Advice to the People I have pointed out the injuries the children of our peasants are exposed to from being oppressed with labour beyond their strength ; and it may be collected from what has been already mentioned here, although much more might be said upon the subject, that much greater mischiefs arise from children being over-burdened with literary employments. Severe parents or masters who require such kind of application, treat their children as gardeners, who want to sell the forward fruits, treat their plants ; they sacrifice some, to force others to produce flowers or fruits which never last long, and are in every respect inferior to those which are suffered to come to maturity at the proper season : but the end is answered ; the gardener's skill in preparing his hot-beds and taking care of his green-house is extolled, and people are astonished at the produce of his garden. There is not perhaps a more cruel and useless restraint than that which obliges children to study hard, and requires them to make much progress in learning ; it is the ready way to destroy their health as well as their talents ; and notwithstanding all the powerful arguments urged by great men against this custom, it is still too prevalent amongst us ‡.

The

† M. Philippe Loys de Chezeaux.

‡ I always think with pleasure on the last will of Anaxagoras, that famous philosopher, who first taught that this world was created by an intelligent Being. When persecuted

The evils children are exposed to from too much application, are still aggravated when that application is directed to studies they have an aversion to ; for even at any age, when we are obliged to fix our thoughts upon any displeasing subject, the mischief which weariness adds to those produced by too much attention soon destroy the patient, who can only be relieved by applying to another subject. “ I have
 “ seen, says M. Boerhaave, persons who had
 “ been confined to studies which were disagree-
 “ able to them, brought as it were to life a-
 “ gain from applying themselves * to others
 “ more suitable to their inclinations †.

at Athens under pretence of irreligion, he retired to Lampsa-
 cus, where he was treated with all the respect he deserved,
 which was even carried so far that an altar was raised to him.
 “ The principal people of the city called upon him a few days
 “ before his death, and asked him whether he had any orders
 “ to give : he answered that he desired nothing more than that
 “ children might be allowed to divert themselves every year
 “ during the month wherein he died. This was accordingly
 “ executed ; and the custom prevailed still in the time of Dio-
 “ genes Laertius.” T.

* A recourse to such musical airs as are most agreeable to the ear of a person fatigued with long and intense study, might prove recreating and useful, by exciting the action of different nerves, from those which have been over-exercised by long thought and attention, and which must have need of rest. I am acquainted with a sedentary person, greatly addicted to reading, who assures me, that when he has found himself nearly stupified by attending to one book or subject, he has found his apprehension sufficiently awake on recurring directly to a different one. Another gentleman of considerable application to various reading also informs me, that when he has read himself into a head-ach and a sensible obtuseness of distinguishing, an immediate diversion to elegant poetical works, or even to writing a little poetry, for which he is thought to have some talent, has entirely removed his head-ach, and proved as sensibly cordial to him, as he supposes music would have been to a person of a better musical ear than his own. These observations naturally remind me of that circumstance in the Pagan mythology, which ascribes the powers of medicine, of poetry, and of music, to the same heathen deity, Apollo. K.

† Prælect. ad Institut. § 1056. t. 7. p. 346.

§ 46. If too early an application to study is hurtful, it is no less dangerous to begin to apply too late in life. Customs are formed only by degrees; there is a time of life when they are not contracted without difficulty. When a man is arrived to his full strength, without having been accustomed to literary occupations, it is to be feared that the fibres of the brain will not readily yield to the recent impressions this new kind of life will imprint; so that the motions of the nerves will probably be irregular, and a delirium will ensue. Instances of persons losing their senses, from giving themselves up to books at a time when they ought rather to think of lessening their attention to study, are not unfrequent. I have had here, not long since, a foreigner who left off trade at forty years of age, in order to cultivate the sciences, and who disordered his brain with reading Locke, Newton, Clarke, &c. He got entirely well by abstaining from reading, by diversions, agreeable conversations, exercise, and medicines, but did not long continue so; for having resumed his metaphysical enquiries, he lost his reason again. Since that time I have been called in to another patient, who being desirous of becoming a geometrician and natural philosopher at fifty years of age, was seized with a melancholy, which is real madness when at its height.

§ 47. A sudden increase of business is also fatal. The only observation I have found in all M. Pujati's great work, is to this purpose: it is of a celebrated preacher, who being sent by the head of his order to preach in a city where the audience was not easily satisfied, exerted himself so strenuously, that he brought on an incurable epilepsy.

§ 48. It is even dangerous for men of letters, who are not young, to apply themselves suddenly to sciences different from those they had been before exercised in. The new ideas they acquire must certainly put some new fibres of the brain in motion, which is therefore thrown into such an agitation that the nervous system is weakened. I knew a very learned divine, who destroyed his health entirely, by interrupting his usual studies in order to apply himself to Hebrew ; and a respectable clergyman, who being promoted to a professorship of divinity at fifty years of age, fell into a consumption, which deprived him of life, and was caused by his laborious endeavours to fulfil the duties of his new calling.

§ 49. If changing the object of study is prejudicial to persons in the middle time of life, the continuation of the labours of the mind is no less hurtful to such as are in an advanced age. Few men are born with such a happy constitution as Gorgias of Leontium ; who lived to the age of one hundred and eight years without discontinuing his studies, and without any infirmity ; or such as his disciple Isocrates had, who wrote his *Pan-Athenæai* at the age of ninety four, and who lived to that of ninety-eight years ; or such a constitution as that of one of the greatest physicians in Europe, who although he has studied very hard all his lifetime, and now that he is almost seventy, wrote me word not long since, that he still studied generally fourteen hours every day, and yet enjoyed the most perfect health. These instances, and some few more of the same nature, cannot be admitted as certain rules : it is still true, that old age suffers, and is sooner brought down to the grave by assiduous application. Our soul
is

is certainly immortal ; but while its union with the body subsists, it follows the same career, seems to be born, to advance, and to grow old with it *. The diminution of bodily strength warns us to lessen the labours of the mind ; the one cannot bear the same burdens, nor the other support the same studies, and the faculties decrease with the muscular powers. Few old men are sensible of this truth ; none can bear to be told of it ; they are all like the archbishop of Grenada upon this article †, but it is not the less certain : so that if those persons who know how to moderate their application as their age advances, prevent infirmities and insure their health, those who are prudent enough to know the time when they ought to lock up their productions, certainly insure their reputation.

“ Solve senescentem mature sanus equum, ne

“ Peccet ad extremum ridendus & ilia du-
“ cat.”

HORAT.

“ I have seen,” says the magistrate of Brussels before-quoted, “ the strongest men perish when
“ they just begin to grow old, by continuing
“ to study as much as they had done in the
“ time of their greatest vigour. We ought to
“ profit by their example. Our time of life is
“ calculated for ease and proper leisure ; it is
“ the time for relaxation ; let us curtail our la-
“ bours by degrees, and at last give them en-
“ tirely up. After having dedicated the great-
“ est part of our lives to the public, let us re-
“ serve the latter part for ourselves: this con-
“ duct is pointed out to us by those statutes,

* Gigni pariter cum corpore, & una crescere sentimus pariterque senescere mentem. T.

† Vid. Gil Blas. t. 3.

“ which

“ which at fixty-five years of age freed a senator from his functions, and restored him to himself *.”

§ 51. The diseases I have here given a sketch of, do not arise from study alone ; immoderate application of the mind, of whatever kind, will produce the same ; some examples of which have already been given.

Health is frequently destroyed by excessive devotion : M. Zimmerman has collected several interesting observations on this head, in which devout melancholy is well delineated : its symptoms are very unaccountable, alarming, and grievous ; and there are few practitioners who have not had opportunities of seeing some shocking instances of this disease. The greatness and excellence of the object, and the satisfaction the soul experiences in giving itself up to the contemplation of the Almighty, excites too lively a sensation, and produces in the brain a tension too violent and too continual, to be supported for a long time together without injury ; it soon throws the soul into fanatical madness, and exhausts the body. I have seen the most amiable young persons, led away by an erroneous system, fade and fall into decay, neglecting the duties of their calling, in order to give their thoughts up wholly to the Supreme Author of their being, who could not have been more properly glorified than by a strict attention to those duties. You still regret one of your students, Gentlemen, a man of the greatest abilities, born with strong powers of the mind, whose candour and other virtues would have been an acquisition to the church ; but who unfortunately devoted himself to a sect, of

which he soon was the victim, the powers of his body decaying as fast as his mind became more zealously inflamed.

§ 51. The employments of majesty, of administration, of judicature, deep speculations of all kinds, and in short every thing which exercises the faculties of the soul too powerfully and for too long a time, will produce the same disorders as the cultivation of the most abstruse sciences. Kings, senators, ministers, embassadors, projectors, will suffer in the same manner as men of letters do, if they dedicate as much time, and apply as intensely to their affairs as the learned do to their studies. They have indeed this advantage, the importance of which I have before indicated, that even the duties of their office often divert their attention, and oblige them to use exercise, an advantage the mere student is deprived of : but again, their labours are often attended with uneasiness and vexation of mind, the consequences of which are still more grievous than those of inaction, and are equally oppressive to the soul and body ; so that I am much amazed when I see persons bear up amidst the business of great undertakings, and the solicitude inseparable from them. Cæsar, Mahomet, Cromwell, and Paoli, greater perhaps than either, must certainly have been supplied with powers more than human ; notwithstanding which, they would still have sunk, if not supported by the assistances of temperance and exercise. But I have sufficiently treated of the diseases, and shall now consider the most proper methods of relieving them.

§ 52. The first difficulty to be overcome in restoring the health of men of letters, is to convince them they are in the wrong. They
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are like lovers, who grow angry whenever any fault is found with the object of their affection; besides, the learned have generally a kind of steadiness in their ideas, contracted by study and increased by self-opinion, too often the effect of knowledge, which prevents them from being easily persuaded of the hurtful tendency of their conduct. Warnings, arguments, intreaties, chidings, are often used in vain; they find out a thousand ways of deceiving themselves; one depends upon the strength of his constitution; another pleads the force of custom; a third flatters himself he shall still escape, because he has never yet suffered; a fourth encourages himself with examples which prove nothing in his favour; all of them resist the physician's advice with an obstinacy mistaken by them for resolution, which they think commendable, and therefore become the victims of it. Far from being sensible of approaching danger, they sometimes cannot be persuaded that they are ill; or rather, they think a cessation from study is the greatest injury they can suffer, and reckon others for nothing, provided they can screen themselves from that. When the opposite extreme prevails, and that they are attacked with such mobility of the nerves as makes them fear even the most imaginary evils, they are not less difficult to be dealt with. Want of courage does not always make them tractable; on the contrary, an irresolution worse than obstinacy takes place; so that it can hardly be expected they will submit to the confinement of a regular treatment. It may indeed be affirmed in general, that learned men are the most ungovernable patients; which is an additional reason for giving them an

an insight into the means of preserving and restoring their health.

§ 53. The relaxation of the mind is the first preservative; without this, all other helps are inefficacious. I know there has been a small number of men of superior talents, to whom it would have been presumption to have given this advice: it would have been a kind of sin to have taken them away from their studies. Descartes, absorbed in the most sublime meditations, and marking out to mankind the path of truth; Newton, discovering and laying open the laws of nature; Montesquieu, composing a code for all nations and all ages, are certainly to be respected in their occupations: they were born for arduous undertakings, and the public requires great things of them. But how few are there whose labours are of so much consequence to mankind? The greater part of the learned waste their time and their health in very unprofitable studies. One is a compiler of the most common things; another says what has been often said before; a third is employed in useless disquisitions; a fourth destroys himself by giving up his time to compositions of a light and trifling nature; a fifth, in tedious and prolix writings: neither do any of them think of the hurt they do themselves, and the little advantage the public will reap from it. The greater number indeed never concern themselves about the public, but rather devour study as gluttons cram down food, merely to glut their appetities; by which they also neglect many essential duties. The only way, therefore, is to be resolute with them, to force them away from their closets, and oblige them to indulge in recreation and rest, which will remove their disorders and restore their health. Besides,

sides, the time they pass out of their closets is not thrown away ; they return to their labours with fresh eagerness ; and a few moments given up every day to leisure, will be amply repaid by the enjoyment of health, which will prolong the course of their studies. Sometimes even the most lucky thoughts arise in the midst of recreation *. One of the greatest geniuses of our age composed his immortal works walking about in the country †. The soul unfolds itself in open air, but is imprisoned within the confined walls of a study ; it is elevated by the fragrance of rural flowers, depressed by the smell of a lamp. Plutarch's comparison on this subject is very just and excellent : “ A little water, says he, nourishes and strengthens plants ; a greater quantity stifles them.” Thus it is with the mind ; moderate labour is its food ; excessive labour destroys it ‡. It is, perhaps, more necessary to prevent this disease than any other : disorders seated in the brain scarce admit of a radical cure ; it recovers its powers with more difficulty than other organs. The more useful the brain is to men of letters, the more ought they to take care of it ; and I should think the instances we have of persons becoming idiots from too intense application, sufficient to open the eyes of the learned, and teach them moderation. Let them therefore no longer persist in attempting to justify such dangerous practices, and in sporting with their own health ; let them not alledge the examples of others, the trial is too hazardous ; let them

* *Vegeta & strenua ingenia, quo plus recessus sumunt hoc meliores impetus edunt.* Valer. Maxim. lib. 3. cap. 6. p. 140.

† *Animus eorum, qui in aperto ære ambulant, attollitur.* Plin. jun.

‡ *De Educatione. Pueror. cap. 12.*

not avail themselves of the strength of their constitution, since they are every day impairing it; let them not depend upon the effects of custom, since that only makes the action of the noxious causes imperceptible, without destroying it; let not the happy circumstance of having hitherto escaped, make them careless of the impending danger; and lastly, let them be convinced, that we cannot with impunity give ourselves up to excessive application; and that in order to cultivate the sciences without prejudice to our health, it is necessary to interrupt the course of our studies frequently.

§ 54. When inactivity was mentioned as the second cause of the disorders here treated of, exercise was certainly represented at the same time, as one of the most powerful preservatives and restorers of the health of the learned. In the foregoing article the advantages of open air have been considered: these are greatly enhanced, if accompanied with some degree of motion. From the combination of these two salutary powers, we receive refreshment, circulation is carried on with ease, perspiration encouraged, the action of the nerves reanimated, and the limbs are strengthened. Every man who has been confined to his study for some days, feels his head heavy, his eyes inflamed, his lips and mouth dry; he complains of a certain uneasiness about his breast, a slight tension at the pit of his stomach, is more disposed to melancholy than mirth, his sleep is less refreshing, and his limbs are weighty and benumbed. If he still persists in shutting himself up, all the symptoms increase, and lay the foundation of the mischiefs I have described. A walk for two or three hours in the country dispels them entirely, and brings back serenity, freshness,

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and strength. The learned in general are not sufficiently convinced of the influence the body has on the soul, although it was well known to our greatest men *, who have been sensible that the mind was subject to the powers of physic as well as the body. “ The soul, says Descartes, “ is so much influenced by the constitution and “ the state of the bodily organs, that if it were “ possible to find out a method of increasing “ our penetration, it should certainly be sought “ for in medicine †.” This conjecture of Descartes has been verified by M. Hoffman. This famous practitioner expressly declares, that he has known some stupid persons acquire judgment from being put a little into motion ‡. All men of letters ought firmly to resolve to give up at least two hours every day to exercise; and Mr. Boerhaave is of opinion it should be taken before dinner. Walking alone is very beneficial, but not quite sufficient; and it cannot be too much recommended to them to ride out frequently on horseback: this kind of exercise is of great use to the head, the breast, and the viscera of the lower belly especially by preventing or dispelling their obstructions, which have been mentioned among the diseases common to sedentary persons. I should even wish that the present age and posterity might be indebted to our learned for the restoration

* There is a very remarkable passage on this subject in Moses Maimonides, the most antient of the Arabian physicians: “ Since health, says he, assists us much in the knowledge and “ worshipping of the Divinity, and that the sick man cannot “ properly contemplate his works, it becomes therefore absolutely necessary to avoid with care whatever may be hurtful “ to the body, and on the contrary to seek after every thing “ which may preserve or improve health.” T.

† De methodo, n^o. 6.

‡ De motu optim. corpor. medicin. § 2.

of those various exercises which the ancients made a part of their duty, which our ancestors were still expert in, and which have been so much neglected for the two or three last generations, that in all probability in a few years hence their very names will not be found but in dictionaries. History, which men of letters are certainly well acquainted with, abounds with instances of the good effects of exercise. Herodicus, a famous physician, the master of Hippocrates, who first introduced the *medicina gymnastica*, restored his own health by this means, and lived to the age of one hundred years, notwithstanding the weakness of his constitution: he might perhaps be too free in prescribing it to his patients, but we are all apt to be too zealous in favour of useful discoveries, because we know not at first how to determine their benefits and disadvantages *. Strabo being seized with a disorder of the spleen, one of those incident to the learned, cured himself only by exercise †. In the same manner Histonæus got the better of a weakness of the nerves. Galen, who was sickly till he was more than thirty years old, tells us himself, that he could not recover his health any other way than by giving up some hours every day to exercise. Socrates ‡ and Agesilaus riding across a stick with their children; the great pontiff Scævola, Scipio, and Lælius playing at chuck, and making ducks and drakes by the sea-side

* Herodicus was brother to the famous rhetorician Gorgias of Leontium, who lived to the age of one hundred and seven years, and certainly followed the advice of his brother. T.

† There are some princes and many great men of this name. This one is Strabo of Lampascus, surnamed the Natural Philosopher. T.

‡ Arundine equitavit ipse Socrates. Valer. Maxim. l. 8. c. 8.

to rest them from their labours, and to preserve their health, spirits, and strength; appear to me as examples worthy to be proposed, without offence, to the most learned amongst us, for their imitation; and it is probable they will not disdain to follow them. “It is surprising, says Pliny the younger, that the powers of the mind should be so much quickened by motion and bodily exercise.”

Sailing is an exercise which cannot be recommended to the learned, because it is not within the reach of the greatest part of them; but it may be considered as a powerful remedy for removing obstructions in the viscera, dissipating the bile, restoring perspiration, encouraging all the evacuations, and which therefore should not be neglected by those who have an opportunity of using it. Its advantages were well known to the ancients *, and it is the kind of carriage preferred to all others by Octavius Augustus, who was himself a man of letters, and subject to their infirmities †. “He applied himself early, says his historian, and with eagerness, to eloquence and the fine arts: he was afflicted with heavy disorders, was subject to rheums and defluxions, and was troubled with the stone and inflammations of his bowels ‡” But although he suffered the inconveniencies which knowledge brings along with it, yet he was more prudent than the learned generally are; for he knew how to attend properly to his health, and thereby preserved himself to a good old age.

* M. Gilchrist, a celebrated Scotch physician, has shewn the good effects of navigation, in many grievous disorders, by a collection of observations in a small work, *On Sea Voyages*. T.

† Si quo mari pervenire posset potius navigabat. Sueton.

‡ In vit. Oct. Aug. cap. 82.

Riding in a coach well hung, and on an even road, can hardly be called exercise, any more than the motion given to sick people, in different machines contrived for that purpose, when they are not in a condition to go out. But these are feeble resources we never have recourse to while more effectual helps can be had; and men of letters have it always in their power to use better exercise, if they do not begin too late.

The exercises most suitable for men of letters are such as put the whole body in motion; these are, tennis, the shuttle-cock, billiards, the mall, hunting, skittles, bowlings, and even chuck; but these are unfortunately in such discredit in many parts, that persons who are tender of their good name would almost be ashamed to be seen playing at them, and will not be convinced that the neglect of these useful amusements, is one of the principal causes contributing to the increase of their disorders. It is much to be wished, that the use of these exercises could be restored, in the many academies which are now established for the education of youth, and that the gymnastic art should become, as it was formerly, a part of the master's care, as well as the diversion of the young people: under this general term I comprehend young ladies also, whose sedentary life often disturbs their health, and I may even venture to say, the happiness of society *

§ 35. Learned men, earnest in the defence of their inactivity, will perhaps avail themselves

* Our Author might have added another exercise no less salutary than any he has mentioned, viz. dancing, the good effects of which, are demonstrated by the great age to which dancing-masters attain, and the good health and spirits they commonly enjoy.

of the instances of a few persons, who have preserved their health to a very advanced age without taking exercise; or may plead, however improperly, as we have just now seen, the inactive lives of the fair sex, as well as of several artists, whose occupations are sedentary, in their behalf; but they unfortunately deceive themselves, and will find that the instances they alledge are not similar to their own situations.

If indeed there are some women (for this cannot by any means be said of the greater part of them) who enjoy a tolerable state of health without taking exercise, it is because they have other methods of promoting the circulation, of which the learned are deprived. Nature has made them more susceptible of agreeable impressions, and has supplied them with a greater fund of cheerfulness; they talk more, and conversation is itself a kind of exercise suited to them; they generally eat less; they do not exhaust themselves with deep thinking, so fatal to the learned; their sleep is not broken by the involuntary continuation during the night of any ideas the mind has been strongly impressed with in the day-time: a thousand little incidents of society, which a man absorbed in study does not even perceive, are for them important enough to interest their passions to a degree sufficient to quicken the circulation without fatiguing the organs. If some men of the world grow old, and preserve their health, notwithstanding the inactivity of their lives, it will generally be found, on examination, that they have had some of the same advantages as have been proved to be common to women.

Neither should men of letters deceive themselves with the examples of sedentary artists, for their occupations are of a very different
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nature ; they have but one inconvenience common between them, which is, the want of necessary motion : but even this inconvenience they are far from being equally exposed to ; for the man of letters is constantly sitting every day ; whereas the artist corrects the bad effects of the sedentary life he leads while at work, by the exercise he indulges in on Sundays, and holidays : this in one part of Europe takes up rather more than a seventh part of the year, and in the rest more than a sixth. In every instance the difference between them is considerable ; for although the artist may not stir from his seat, some part of his body is however always in motion ; and in some works of art, this motion is sufficient to make them very laborious and fatiguing, notwithstanding the workman is always sitting ; in all of them the continuation makes some amends for the inconsiderableness of it ; so that the summary of their motion at the day's end, although by no means sufficient for health among several of them, yet amounts to more than what many of the learned use. Besides, if the artist does not use the exercise necessary for quickening the action of the nerves, he does not at least consume it by study ; his labour procures him sleep, while that of the learned deprives them of it ; his digestions are not disturbed by thinking after meals ; his method of life is more simple ; his cheerfulness, and singing at his work, supports him ; in short, in every particular the man of letters has the disadvantage *.

§ 56.

* I do not pretend to say that inactivity is not hurtful to many artists. I know that all the arts have their inconveniences, and perhaps the husbandman's life is the only one which is not contrary to health ; but I only mean to shew, that the inactivity

§ 56. However beneficial action may be, it is still necessary to use it with prudence, lest it should become hurtful. The first thing to be attended to, is the avoiding of immoderate exercise, which is far from doing good, but rather exhausts than restores the strength. The learned, who are apt to give into extremes, pass on sometimes from a compleat state of inaction to the most active life they can chuse, imagining that a few days of hard exercise will compensate for their having been a long time without any: but they are much mistaken; for they not only waste their strength by these means, and find themselves more exhausted afterwards, but also their vessels being weak, and not able to resist a too sudden increase of motion, are in danger of being ruptured; from whence, bleedings of the nose, spitting, and even vomitings of blood, which I have sometimes seen. It is with reason therefore that Seneca, in treating of the exercises proper for men of letters, forbids such as exhaust the spirits*; and Homobono Piso, the Italian physician, who in our days wrote against the circulation, was of opinion, that a man who wearied his body with labour, was unfit to give a proper attention to business†.

inactivity of the learned is greater, and attended with more hurtful circumstances, than that of sedentary artists. The diseases of this class of men arise from four principal causes; the want of sufficient exercise and open air; the places they live in, which are oftentimes unwholesome; the substances they work upon, or use in their work; the weariness of particular parts of the body, on which the laborious part of their business is exerted.

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* “Nam exercitationes, quarum labor spiritus exhaust, hominem inhabilem intentioni ac studiis acrioribus reddit.” Epist. 15.

† De Regimine Magnor. Auxilior. p. 378.

A second precaution to be observed, is not to apply immediately after having taken exercise, and that for two reasons : the first is, that rest is necessary for us at such a time, and that the action of the mind is not relaxation for the body when fatigued, as that of the body is for the weary mind : the second is, that the circulation is quickened by exercise ; and the brain itself being agitated by this increase of motion, is hardly in a proper state for admitting a series of ideas, the clearness of which depends upon the oscillations being undisturbed and regular *.

There is certainly no man of letters, who has ever found himself under the necessity of applying after having taken exercise sufficient to ruffle his pulse, and who has not at the same time felt a kind of unsteadiness in his head, and that a number of ideas crowded in upon him without the necessary precision.

In the third place, it is of great consequence to abstain from violent exercise immediately after a meal ; digestion is not brought about either by fermentation, dissolution, or trituration separately, but rather by the combination of these three powers ; and it is a process which requires tranquillity. It stands in need of the nervous influence, as we have before observed, and is therefore disturbed, if that is otherwise taken up by hard exercise. The food is not to be incessantly tossed about in the stomach, because the action of digestion already begun would be disturbed at every instant by this motion ; and for this reason the trotting of a horse hinders

* Vid. Platneri de Negotiosa Actione propter Valetudinem circumcidenda. This excellent Dissertation, full of useful remarks, and written with great elegance, is a very valuable piece for all physicians.

digestion more than any other exercise that can be taken after dinner.

It may be still proper to observe, that all exercise will at first prove troublesome after long disuse, and will perhaps appear to do more hurt than good; but we are not to be discouraged by these inconveniencies; since they may be in great measure avoided by setting out with moderation, and going on gradually till we shall at last find ourselves enabled to take a great deal of exercise without fatigue, and with the most evident benefit.

§ 57. When men of letters can be prevailed upon to relax their minds and take more exercise, they will generally escape the disorders they are exposed to; but as it is not to be expected that they will all follow the advice given to them on this head, it becomes also necessary to regulate their diet in such a manner at least, that their food may not increase the causes of their infirmities, but rather if possible contribute to lessen them *. In Hippocrates we find a general rule for the learned as well as for all other individuals, respecting the quantity of food necessary: "Let nourishment (says he) be proportioned to labour †:" for, as he mentions elsewhere, "if the powers of the body exceed the force of the aliment," (that is, "if we digest well) it nourishes and gives strength to the body; but if the strength of the aliment is greater than the power of the stomach," (or, in other words, if the stomach cannot digest it), "a number of inconveniencies arise ‡." Plutarch insists much

* "*Vero è, che un letterato indefesso ne' studi se usi un vitto regolato, innocente, e parco provare piu soffribili gl'incommodi di sua professione.*" Felici Dissertat. p. 203.

† *Ὁς οὖν πονεῖ ἐστὶ καὶ ἡ τροφή.*

‡ De Locis in Homine, p. 421. and in other places.

upon this reciprocal proportion between the degree of exercise and the quantity of food requisite for the preservation of health ; and we shall be convinced of its importance, if we call to mind what I have before proved, that it is the action of the different organs which extracts from the food juices similar to our humours, and changes them to our own proper substance. If these organs, the chief of which is the stomach, are too weak to act upon a great quantity of food, or such as is difficult of digestion, the food then, instead of being assimilated or converted into our substance, becomes putrid, and, as I have before observed, § 20, degenerates into that kind of putrefaction peculiar to its nature, and remains in the stomach an extraneous body, which irritates and affords no nourishment. The powers of these organs are therefore to be attended to ; and among the learned there are so many circumstances tending to impair them, that they cannot expect to preserve them long : besides, even when their digestions are well performed, they should consider that they perspire but little, and for that reason abstinence is of consequence to them, to prevent the mischiefs mentioned in § 23, p. 54. Let them compare themselves to the robust ploughman, and judge whether they can bear the same kind of diet. The one is always in the open air, always in exercise, always chearful, and never fatigues himself with thinking : his sleep being calm and regular, and his secretions well performed he is always in perfect health : the hardest kind of food is not too difficult for his stomach, because he has all the properties necessary to digest it ; his teeth being good, he begins by chewing it well ; whereas most learned men swallow their victuals without

out chewing. In the ploughman, the saliva, the digesting fluids of the stomach, the pancreatic juice, the bile, the intestinal juices, are all in a higher state of perfection, because the organs which secrete them are sound; the muscular fibres of the stomach and bowels act with force: in short, none of the offices are languidly performed, the excrements are properly expelled, the chyle is conveyed without interruption into the blood-vessels, in which it is soon changed into good blood, the superfluous parts of which are carried off by urine and perspiration, and the body is preserved in a perfect equilibrium.

If light broths, niceties, jellies, chicken, or white bread, are given to a hard-working man, he will have digested them in a very little time; he will soon grow hungry, be in a general sweat and faint away, unless quickly supplied with bacon, smoke-dried meat, cheese, or brown bread. If a man of a tender constitution attempts to live upon such food, he will be seized with violent pains in the stomach, or with anxieties more troublesome than pain; he will have powerful indigestions, and the aliments putrefying, will become a kind of poison, productive of the most fatal consequences. The learned have been apprised of this danger by M. Boerhaave: “There are some men of letters, says he, of greedy appetites, who venture to live upon the same food as the country people do, but they cannot digest it; they will find themselves obliged to give up their studies or change their diet; or else tedious and painful obstructions in the bowels will be the effects of their indiscretion*.

* *Prælect. ad Instit.* § 1036. t. 7. p. 337.

§ 58. The learned ought to attend to the quantity as well as the quality of their food ; errors in each of these circumstances are of bad consequence ; but I may venture to assert, that if we must give into either of these errors, it may be less hazardous to chuse food of an improper kind (which indeed we may be sometimes obliged to do), than to indulge in eating too much, which never can be necessary.

It is not my intention to give an exact list of all aliments which may be injurious or useful : I shall only specify the general classes of such as are to be avoided, and such as may be indulged in.

Those which are improper are, in the first place, all kinds of greasy aliments : they increase the relaxation of the fibres of the stomach, blunt the action of the saliva of the juices inservient to digestion, of the bile, of the juices of the intestines, the properties of all which are already too much weakened ; by the tediousness of their digestion, they cause an uneasy weight on the stomach, and degenerating into putrefaction, become at first acid, then rancid, and produce the symptoms of violent irritation in these parts.

2dly, All food of a viscus, gluish, or slimy nature, acts nearly in the same manner as the greasy aliments. These two classes comprehend all fat pastry, all things that are fried, fritters, creams, the feet of animals, &c.

3dly, We may reckon among the improper aliments all such as contain a great quantity of air, which expanding itself, and not being sufficiently confined, by weak organs, nor dispersed in proportion as it expands, produces considerable swellings, always attended with a sensation of uneasiness throughout the whole body,

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and especially of confusion in the head, which disturbs its functions. This kind of property made the ancients forbid the use of all vegetable seeds, and induced Pythagoras, who in other respects recommended a vegetable diet, to lay a particular injunction upon his scholars not to eat beans *.

4thly, Meats naturally tough, or hardened by smoke and salt, are to be avoided; for the digestive powers act too slowly upon such substances; they stay a great while in the stomach; produce, first, irritations by their weight and acrimony; become putrid by remaining so long in the same place; and this putrescency afterwards increases the irritation.

5thly, Men of letters must abstain from food which is very sour; for we have seen that they are much subject to acidities in the stomach; as also from any nourishment irritating too much, from any other kind of acrimony which may be hurtful to their delicate and irritable nerves.

* The air let loose from the aliment is one of the chief agents in digestion; we could not live long upon food from which the air had been expressed: but this air so useful and so necessary when the organs are in a sound state, because at that time a less quantity is set free, because the expansion of it is gradual, because it is governed and employed again as the expansion takes place by the action of the stomach and intestines, becomes hurtful when the digesting powers are weakened; because, as we have already seen, the aliments putrefying sooner than they are digested, a much greater quantity of air is set free; because the food gets forward but slowly, and remains a long time in the stomach: this organ, therefore, becomes loaded with a body of air, which should have been distributed throughout the whole intestinal canal; because, lastly, this air being more powerful than the organs containing it, if I may venture to use this expression, is not governed by them; but being collected and rarefied every moment by the heat, its bulk is prodigiously enlarged, so that sharp pains are brought on, digestion is interrupted, the viscera of the abdomen are compressed, their functions disturbed, and sometimes inflammations are brought on.

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§ 59. The most suitable kind of food is, in the first place, the tender flesh of such young animals as are generally served up at tables, except that of pork, geese, or ducks. 2dly, All shell fish which is firm and tender, either from the sea, rivers, or standing waters. 3dly, The grains of corn, such as the different kinds of wheat, rye, barley, rice, oats : we must not even think that all the seeds of vegetables are hurtful : although they contain more air than the others, I have never observed that a moderate use of them was injurious to persons whose stomach was not quite destroyed. Some of these seeds, when boiled, compose the different soups commonly known under the name of farinaceous broths, which, whether they are made with water alone, or with the addition of meat, according to the circumstances, are a very nutritious kind of food, easy of digestion, and which may be used with great success in many cases. The wheat and the rye make the bread, of which I shall speak presently. 4thly, All herbs which are not too relaxing or too acid, are to be reckoned among the aliments proper for studious men ; the different species of endive are the most wholesome among these. 5thly, We may reckon also most of the common roots, the nutritious parts of which consist in their farinaceous substance, as in the seeds ; besides that most of them are impregnated with a very sweet juice, which being a mixture of oil and salt, is very salutary *.

* All the culinary roots, and undoubtedly many others, are full of an excellent kind of sugar, not inferior to that of the sugar-cane, and which may easily be extracted from them ; eight ounces of the juice of skirret yield one ounce and a half of sugar. *Margraff. Mem. de L'Acad. de Berlin.*

6thly, Bread, the common nourishment of all civilized nations, and of which some equivalent substitute is to be found in use among the generality of mankind, must not be omitted here. 7thly, Eggs. 8thly, Milk. 9thly, The fruits are to be considered as proper food. But the use even of these aliments may be made still more beneficial, by attending to some observations very necessary to be made.

§ 60. With regard to the tender meats, we must eat them roasted or boiled in a very small quantity of water : if they are boiled in a large quantity, the water becomes impregnated with all the nutritious particles, and nothing remains but a dry fibre, which cannot supply any nourishment. Beef which is tender, good veal, mutton fed in dry places, fowls, chickens, capons, and pullets, if not overloaded with fat ; turkeys, young pigeons, partridges, and larks, are the most proper meats for persons of delicate stomachs ; and perhaps they ought to confine themselves to such sort of food.

Fish without shells, fish from ponds, or those which are too fat, flabby, or slimy, are bad nourishment ; they ought to be avoided as pernicious ; and in general, the most wholesome way of dressing fish, is by boiling them in water.

New-laid eggs, either raw or boiled a little in the shell, are a kind of food soft, not inflammatory, and of easy digestion ; but they become hurtful, when not exceedingly fresh, and if boiled hard, are not to be digested without much difficulty ; otherwise they are very proper for persons subject to acidities ; and those who cannot bear them whole may find it very useful to eat the white of the egg only, which
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is more readily digested, and very strengthening *.

Milk, the mildest and most digestible of all aliments, is also very proper for men of letters, if they are not troubled with acidities, or if they do not mix it with other food which might alter its properties, or with substances of difficult digestion, which might retain it a long time in the stomach, and be taken alone, or with a little bread, after the digestion of other aliments is compleated.

Chocolate may be mentioned next after milk, and is rather to be reckoned among the aliments than the drinks: it is the decoction of a seed composed of two parts; a soft, nourishing, digestible kind of meal, and a greasy, bitter, sharp oil: this mixture makes it a speedy restorative and strengthener; but it must not be used too freely. The cocoa-nut is too nourishing for plethoric persons; it increases the quantity of blood and heats them; being greasy, it sometimes lies heavy on the stomach, does not digest well, takes away the appetite, makes the body costive, and is generally improper when there are any obstructions: at other times it turns sour. The addition of sugar makes it more easy of digestion; but aromatics, especi-

* If we were not satisfied of this fact from experience, it might have been concluded from the circumstance of the white being the first nourishment of the chicken, and that the yolk only becomes useful to it in the last days of its confinement. And, if the accounts of some travellers may be credited, the yolk of the Taron's egg, a kind of sea-hen in the Philippine Islands, never serves for the nourishment of the little animal; so that when he is hatched, the yolk is found entire in the shell. But how are we to reconcile this observation with others, which prove incontestibly that the yolk is itself a part of the animal?

ally the vanilla and ambergrease †, make it unwholesome to several people, and injurious to all inflammatory constitutions, who are much inclined to have blood derived to the head.

§ 61. The fruits most in use are cherries, strawberries, raspberries, currants, gooseberries, mulberries, the different sorts of plums and peaches, melting pears, apricots and grapes. They are not all equally wholesome: cherries, mulberries, peaches, melting pears, and grapes, seem to be best. Their relaxing property, and being likely to turn sour, might induce us to think they were not proper for the learned; neither indeed would I advise to eat them in too great a quantity, or to persevere too long in the use of them †. But in enumerating the evils we are exposed to by study, it has been observed, that one of the most terrible of them is the stagnation and thickening of the bile, which these fruits are best calculated to prevent or cure; their juice is the mildest, most dissolving, most pleasant, most nutritious and fortifying of all the saponaceous juices. It keeps the bile in its fluid state, removes obstructions, encourages the peristaltic motion of the intestines, dissipates that melancholy which proceeds from obstructions in the lower belly, and is particularly serviceable to that class of the learned mentioned

† The French word “*de l'ambre*,” is often used by perfumers for ambergrease.

† With respect to the use of fruit, I should imagine our Author's advice were better calculated for Switzerland or the South of France than for this climate, where we cannot expect them in such perfection, as in the more southern countries, and consequently ought not to indulge so freely in using them.

§ 44. who are subject to inflammatory fevers, or such as are liable to hectic proceedings from want of moisture, or from the putrid acrimony of the humours: these fruits are also most specifically useful in the disorders mentioned § 22, which arise from a corruption of the bile. When we are troubled with acidities; when the stomach and intestines are in too great a state of relaxation; when the whole body is flabby, the blood too much dissolved, and the strength exhausted, we are then to abstain from them. Even those persons whom they are fit for, especially the learned, whose stomach always requires care, will find it better to eat them between meals when the stomach is empty, than immediately after dinner; better to eat them alone, or with a little bread, than to mix them with other food; and above all, they will find it necessary to drink only water over them, which is the proper fluid for them to macerate in, whereas wine makes them hard and sour.

§ 62. It is impossible to lay down general rules for the choice of diet; but every individual must regulate it by observing what agrees or disagrees with him. Some people can digest meat rather than vegetables, which are apt to give them an uneasy sensation at the pit of the stomach, and they therefore ought to use them with great circumspection; others they agree with better than meat, which they cannot eat freely of without being troubled with anxieties, restlessness, oppression and fever. In general, vegetables are thought the most proper food for men of letters: Plutarch will not even allow them the use of meat, which he says impairs the understanding. In support of this system it may be urged, that we have instances of several philosophers, famous for their talents
and

and the extent of their knowlege, who always used to abstain from meat; such as Zeno, Plotinus, and Chrysanthus. The late M. Cocchi, a celebrated Florentine physician, has written a very interesting dissertation on this subject*: but yet I think it necessary to observe, that it would be very injudicious to confine the learned entirely to a vegetable diet, which might be of real bad consequence to many of them. Galen, Sethi, and Plempius, all agree in recommending river fish as one of the most wholesome aliments for studious men, as being lighter on the stomach than meat. I have seen some men of learning who were always troubled with acidities when they eat bread, and who were therefore obliged to eat it very sparingly. Eggs disagree with many persons, and yet no reason can be assigned for it; the same thing may be said of milk; so that it becomes absolutely necessary to consult the stomach in the choice of our diet.

§ 63. Although the most simple way of dressing victuals is the most wholesome, yet seasoning is by no means to be excluded from the diet of the learned. The loose fibres of their stomach, the action of which is not excited by motion, stand in need of some slight provocatives to get the better of their numbness; these are salt, sugar, some mild aromatics, as cinnamon, nutmeg, and especially those more wholesome aromatics to be found in our gardens, thyme, marjoram, sweet basil, chervil, fennel, and others of the same class: but those stimulators are to be avoided, which being loaded with an oil or salt of an excessively acrid nature,

* Del vitto Pittagorio per uso della Medicina. Fiorenza, 1744.

irritate too powerfully, and continue acting for too long a time. All men of learning, in imitation of Horace, should detest garlic, and abstain from mustard and pepper, which are impregnated with an almost caustic essential oil. They ought even to guard against a too copious and too frequent use of the mildest seasoning, which should never be considered as part of the common food; for every thing that irritates increases the circulation, wears out the organs, and shortens life.

§ 64. One of the dietetic rules of most consequence to health, and which becomes more particularly necessary to a weak stomach, is to avoid mixing a great variety of food together, and never to eat of more than two or at most three dishes at one meal; those who confine themselves to one are still more prudent. I knew a worthy old man, who finding himself very sickly at forty years of age, took a resolution never to eat of more than one thing; he kept his word, and has now reached his ninetieth year in perfect health, still enjoying the powers of his mind, and the quickness of his senses. If we reflect a little on the surprising variety of meats our tables are covered with, and the number of different things we load our stomachs with in a short time, we shall be apt to think few customs are more ridiculous: but if we observe the effects, we shall be convinced that none are more dangerous. Let us learn from Horace on this subject; his advice may perhaps be more agreeably received, and followed with more confidence, than that of a physician. “ Let us now consider (says he) “ what are the advantages of temperance. First, “ it always brings good health with it. To be “ convinced of it, we need only recal to our
“ minds

“ minds some of those plain meals which have
 “ agreed with us so well: but when we come
 “ to mix game and fish with ragouts and roast
 “ meats, the softer food is changed into bile,
 “ and a viscid phlegm breeds a variety of mis-
 “ chiefs in the stomach *.”

§ 65. However wholesome and simple the food of the learned may be, if still taken up with their studies, they eat without chewing, a custom I have before complained of; they deprive themselves of one of the most useful helps to digestion. Nothing relieves the stomach so much as a proper mastication; it increases the secretion of the saliva, which is one of the most powerful of the juices inservient to digestion †, and mixes it intimately with the food, the surface of which it extends by comminution, and makes the juices of the stomach penetrate into it with more ease: the dissolution therefore of the aliments being quickly performed in the stomach, they stay there for a less time, are digested, and do not putrify: for the same reason the stomach is not irritated nor fatigued; all the remaining functions feel the effects of this first digestion well performed, and are executed with ease. There are two more advantages attending mastication; one is, that we eat a less quantity of food, and are supplied with an equal share of nourishment by it; the other, that it contributes greatly to the preservation of the teeth: in short, health depends so much upon it, that its advantages are inestimable; and we cannot insist too strongly upon the injuries too frequently arising from the neglect of it.

* Accipe nunc victus tenuis quæ quantaque secum
 Afferat, &c. Satyr. 12. lib. 2.

† Macbride's Experimental Essays, p. 15, 54, &c.

§ 66. As men of letters digest slowly, they ought not to eat too often ; for there is great difference in the state of a stomach wherein some half-digested food remains, which requires all the powers of digestion to finish its dissolution, and one entirely empty, which has recovered its powers, and is well moistened with digesting fluids ready to act upon fresh food. Whatever is taken into the stomach in the first state disturbs the digestion already begun, and cannot go through the first changes necessary to produce a good digestion ; it is therefore of great consequence to studious men to avoid eating at improper times : three meals in the day are quite sufficient for them ; two very slender, and one a little more plentiful. I have seen persons who had injured their stomachs and health by study, recover by adopting the method of life I had prescribed to them, together with some directions with regard to the choice of their food, a detail of which would be improperly placed here. When they rose in the morning they drank a glass of cold water, breakfasted an hour afterwards, and studied for four or five hours ; they then took some kind of exercise during an hour at least, and dined after having rested themselves a little. The hours immediately after dinner were employed either in a gentle walk, or in some social duties which neither fatigued the body nor the mind ; they studied again for a few hours in the evening, and then took a very light supper, which circumstance is of great consequence to the learned on several accounts. The first is, that the blood being carried in greater quantity to the head while we are asleep, it is dangerous to increase the fulness of the vessels by
a hearty

a hearty meal before we go to-bed *: the second is, that the action of the nerves being diminished during the time of sleep, digestion, to which that action is necessary, will not be so well performed: the third is, that the sleep of the learned being never very sound, if a great quantity of food happens to be in the stomach at that time, it irritates and keeps the nervous system in such a state of agitation, that rest is entirely disturbed; they are not quite awake, because their strength will not allow them to be so; neither do they sink into sleep, for they cannot enjoy that profound tranquillity which constitutes it; and this kind of state fatigues them excessively, and injures their health. These inconveniencies are prevented by light suppers, such as Plato used himself to, which were said to be pleasant at the time, and continued so for the next day; such as leave the body healthy, and the mind free: whereas, on the contrary, the head is incumbered by a plentiful supper, the body fatigued, the mind depressed, and unfit for study †.

I have known some men of letters who have

* The fulness of the vessels of the brain during sleep is proved by a number of phenomena: a circumstance occurs to us every day which manifestly shews it; I mean that grinding of the teeth we see in many children, and which some adults are even subject to in their sleep; and it is always much stronger after a plentiful supper. T.

†

“Vides ut pallidus omnis

“Cœnâ desurgat dubiâ? quin corpus onustum

“Hesternis vitiis animum quoque pregravat una,

“Atque affigit humo divinæ particulam auræ.

“Alter, ubi dicto citius, curata sopori

“Membra dedit, vegetus præscripta ad munera surgit.”

HOR. SAT. 1. LIB. 2.

Theophrastus has also observed, “that by plentiful eating and feeding much upon meat, reason becomes weak, the mind grows heavy, and a kind of stupidity comes on.” T.

recovered

recovered their health only by taking a little milk at night. It may be urged by some, that it would be still better not to take any supper. This is a custom with some people whom it agrees with; but it should by no means be adopted indiscriminately by all the learned. Some of them have the stomach so exceedingly irritable, and the nerves so delicate, that if they stay a long time without taking any thing, the juices inservient to digestion acquire an acrimony, which not being sheathed by mixing with the food, irritates the stomach; and this irritation is sufficient to disturb sleep.

§ 67. Those who take pleasure in eating may be apt to look upon these rules as so many austerities, which have never been strictly complied with; and which it might even be dangerous literally to adhere to: but they may be easily convinced to the contrary, from a great number of instances, which prove that a degree of abstinence much more severe than that I have indicated, is the real method of preserving health. Augustus, whose infirmities, as we have seen, were very analogous to such as men of letters are liable to, may be proposed as a model of temperance; for he confined himself to the smallest quantity of food *. Paul the hermit, St. Anthony, Arsenius, and St. Epiphany, not to mention many other reclude persons whose long life is not so well attested, lived beyond a century, feeding only on bread, dates, roots, a little fruit and some water. Galen mended his bad constitution by exercise and very remarkable abstemiousness. Bartholius, the celebrated restorer of right in the fourteenth century, is, if I mistake not,

* *Minimi cibi erat.* Suet.

the first person who ever weighed his food ; he reduced it to a very small quantity, in order to preserve his faculties equally disposed at all times for study, to which he applied himself with uncommon diligence *. But one of the most striking, as well as most useful examples, is that of Lewis Cornaro, a noble Venetian, of one of the most ancient families, and of the number of those which supplied the republic with most of its doges. At the age of twenty five he found his stomach disordered, was troubled with pains in his side, and felt the beginnings of the gout, and a hectic fever : notwithstanding a variety of medicines, at forty years of age, he still continued in a bad state of health ; he then laid aside the use of medicines, and led a very abstemious kind of life, confining himself to twelve ounces of solid food, and fourteen ounces of fluid every day, which was not more than the fourth part of a man's common food in the country where he lived. The effects of this diet, as related by himself, in a small work intituled, *The Advantages of a Sober Life* †, were so remarkable, that his infirmities gradually disappeared, and were succeeded by vigorous and sound health, accompanied with a sensation of happiness and satisfaction he had never before experienced. At

* An anecdote of the life of Bartholius has been preserved, which is rather unfavourable to learning, and affords a too convincing proof of the dangers we are exposed to of falling into a hypochondriac disposition by intense application to study, and being affected with misanthropy and moroseness. He was invested with a considerable office of judicature, and condemned those who were tried before him to death upon the slightest suspicion : this made him so hateful to the people, that he was obliged to retire into the country to screen himself from their fury.

T.

† Luigi Cornaro *discorsi della vita sobria.*

ninety-five years of age he wrote a work upon the birth and death of man, in which he drew a very interesting picture of his own life. “ I find myself healthy and sprightly as at the age of five-and-twenty : I write seven or eight hours in the day ; the rest of my time I take a walk, join in conversation, or bear my part in a concert : I am chearful, eat every thing with appetite ; my imagination is lively, my memory good, my judgment sound ; and what is still more astonishing at my age, my voice is strong and harmonious.” He lived beyond one hundred years. Leonardus Lessius, the learned Flemish Jesuit, was so well pleased with Cornaro’s method of living, that he translated his Treatise on Temperance into Latin ; lived in the same manner himself with the greatest benefit ; and composed, upon the same principles, a Treatise on Diet, in which he demonstrates the advantages of a temperate life *. Ramazzini has handed down to us the History of Cardinal Sforza Pallavicini, who, after having studied all day without taking any thing, contented himself with a very light supper in the evening †. And to come nearer to our own times, the immortal Newton, who lived to a very advanced age, even when he was engaged in his most profound reflections, never took any thing but a little bread and water, and sometimes a small quantity of Spanish wine ; and during the whole course of his life, he never indulged in any thing else, except a little

* Leon. Lessii Hygiasticon, seu vera ratio valetudinis bonæ. Antwerp, 1563

† “ Totam diem litterarum studio sine cibo largiebatur, mox cœnâ modicâ sumptâ ac studiorum curâ ablegatâ, somno & virium reparationi noctem totam impendebat.” De Litterarum Morbis Dissertatio. Opera omnia, p. 654.

chicken. The famous M. Law *, one of those men who has exerted the powers of his mind in the strongest manner, confined himself for several years, in order to keep his head free, and preserve the quickness of his understanding, to one half of a chicken, and about a pound of bread every day, and drank nothing but water or watery liquors; † and indeed the choice of this sort of drink may be considered as one of the most effectual means of preserving health.

§ 68. Water is a drink nature has given to all nations, made it agreeable to all palates, and endowed it with the property of dissolving the aliment. The Greeks and Romans considered it as a panacæa, and not without reason; for it is certainly a very efficacious medicine in all cases where moisture is deficient, when we are troubled with acidities, or when the bile has acquired too much sharpness. Soft, fresh, clear spring water, which readily forms a lather with soap, boils vegetables well, and is proper for washing linen, is to be preferred to any other: when it has all these properties combined, it assists digestion very much; strengthens, keeps up all the evacuations, prevents obstructions, makes sleep more calm, the head more clear, cheerfulness more lasting, and the manners more gentle. If the effects of wine are compared with these, we shall find every part of the comparison in favour of water.

§ 69. Wine acts as a stimulus; it irritates and increases the oscillation of the fibres, an

* Author of the book on money and Trade, and projector of the Mississippi and South Sea schemes; he was a native of Edinburgh.

† Cheyney's natural Method of curing the Diseases of the Body, &c. Part II. ch. ii. § 4.

effect which must necessarily shorten life, if too frequently produced; it is apt to turn sour, and therefore adds to the acidities the learned are already subject to: it is indeed attended with another inconvenience peculiarly injurious to them, and which should of itself be sufficient to dissuade them from the use of it: this is, that it derives the fluids powerfully to the head, and consequently increases the disorders of that part, to which study has already much contributed. Head-aches are seldom relieved and apoplexies never prevented, unless this drink is forbidden, the daily use of which rather interrupts than assists digestion in persons whose stomach is weak. It has been often observed, that water-drinkers had the understanding more clear, the memory more steady, and the senses more quick. Demosthenes, G. Naudé, Tiraqueau, M. Locke, and M. Haller, never drank any thing but water: most of our greatest men, as well as men who have lived to an advanced age, have drank but very little wine, for this liquor is very hurtful in all disorders of the nerves, with which the learned are so much afflicted. They are indeed so unavoidably produced by study, that I make no doubt but that the love of the sciences, which has prevailed so universally for these hundred years past, is one of the principal causes of the present increase so remarkable in disorders of this kind *; which might

* The diseases of the nerves are much more frequent and various than they were sixty years ago: this is a fact commonly known and generally complained of. Every body observes and asks the reason of it. There are many to be alledged, and I shall here point out the chief of them. 1st. The love of the sciences and cultivation of literature is more extended: we might say, as Cicero formerly said of the gods, It is more easy to meet with an academician than a man. The number of

might be more easily cured by proper diet, exercise, abstaining from warm liquors and wine, than

printing-presses continually at work in Europe, the infinite variety of writings daily coming from them, necessarily implies a great number of men, who although they may not all be learned, are yet more or less exposed to the same diseases as the learned men; among which the disorders of the nerves are reckoned. So many authors give rise to a number of readers, and constant reading produces nervous complaints; so that perhaps of all the circumstances hurtful to the health of women, the chief has been the innumerable collection of novels published within these hundred years. From the earliest infancy to the most advanced old age, they read them with so much eagerness, that they are apprehensive of a moment's interruption, take no exercise, and often sit up very late to satisfy this inclination; by which their health is entirely destroyed. To these I might add the women who are turned authors, the number of which increases daily. A girl at ten years old, who sits herself down to read, when she ought to be running about, will be an hysteric woman at twenty, and not a good nurse as she should be. 2dly. The use of warm liquors becoming much more common, the dangers of which I have set forth in the ensuing paragraph. 3dly, The increase of luxury, which brings on a more effeminate kind of life, both among masters and servants, and has multiplied prodigiously the number of the sedentary arts; the establishing of which, however boasted of, has destroyed at once both agriculture and health. I have seen in this country some villages, whose inhabitants were all employed in cooper's work, whose life was taken up in going to cut down the trees in the woods, making them into casks, and carrying them to market; and in this district were found the handsomest, strongest, most healthy men of the country, and who lived in the greatest plenty. Thirty years ago some jewellers settled themselves in this place, money became more common and seduced the people, the love of jewels prevailed, cooper's work was neglected, a sedentary life succeeded to an active one, strangers were hired to cultivate their lands; at last the new profession failed also, and it is at present a part of the country where languid diseases prevail most, where the men are degenerated, and from whence plenty and ease are fled, perhaps never to come back again, since they always leave those countries in which the men are weak and indolent. Many people who waited on themselves thirty years ago, now make themselves be waited upon: many who then walked, now go on horseback; others who then went on horseback, now ride in a carriage: the public carriages even are thought too rough for them; and we shall soon see the time, when the meanest artists

than by any medicines. I would not have it thought, however, that I entirely forbid the use of wine to men of letters; only I would not have it used as a common drink, but rather considered as a medicine. We could not indeed find a more agreeable, or more efficacious medicine, in all cases of much relaxation, weakness, or dejection: we should then take it as M. Newton did, instead of solid food, to strengthen ourselves after uncommon fatigue; to enliven ourselves after having been much exhausted; and to support ourselves under afflictions. At all other times men of application ought to give it up entirely; neither need they be apprehensive of breaking through an old custom, for it is not attended with any danger; so that out of one hundred persons who may suddenly leave off wine, we shall not

artists will not travel without coaches well hung upon easy-springs. People live more in towns than they used to do; the uncertain term of education is attended to; and, without knowing the ideas annexed to it, they come into towns for the education of their children, where health, and oftentimes virtue, is the forfeit. Instead of which the children acquire, 4thly. more passions: these are necessarily brought into play by the luxurious way of living prevalent in towns; they increase vanity, lust, ambition, and jealousy; injurious passions, destructive of health, and productive of all nervous complaints; which destroy the social connections, friendship, and cheerfulness so beneficial to mankind. 5thly. A fondness for high food, of a much more inflammatory nature, which must necessarily waste the organs, bring on weakness, slow fevers, and all nervous diseases. 6thly. A degeneration which is unavoidable. The disorders of parents are transferred to the children. Our ancestors began by going a little astray from the most wholesome kind of life; our grand-fathers therefore were born weaker than our ancestors, were more delicately brought up, and have begotten children still weaker than themselves; and we, of the fourth generation, have scarce any ideas of strength and health, except among old men of fourscore, or from hearsay. To bring them back again to us, would require a reasonable conduct we cannot expect, or a few ages of barbarism, we dare not even wish for. 7thly. The effects of secret diseases. T.
find

find two who will suffer any inconvenience from it. When men of letters think wine necessary for them, they should chuse a strong-bodied nourishing kind of wine, neither sharp nor sour, and which may strengthen them without irritating; on the contrary, they should carefully abstain from all those small wines, which, as Van Helmont says, are rather a sort of vinegar than wine, and therefore produce acidities, interrupt digestion, and irritate the nerves.

§ 70. There is another kind of drink not less hurtful to studious men than wine; and which they usually indulge in more freely; I mean warm liquors, the use of which is become much more frequent since the end of the last century. A fatal prejudice insinuated itself into physic about this period. A new spirit of enthusiasm had been excited by the discovery of the circulation: it was thought necessary for the preservation of health to facilitate it as much as possible, by supplying a great degree of fluidity to the blood, for which purpose it was advised to drink a large quantity of warm water. Cornelius Bontekoe, a Dutch physician, who died afterwards at Berlin, first physician to the elector of Brandenburg, published in 1679 a small treatise in Dutch, upon tea, coffee, and chocolate, in which he bestows the most extravagant encomiums on tea, even when taken to the greatest excess, as far as one or two hundred cups in a day, and denies the possibility of its being hurtful to the stomach. This error spread itself with surprising rapidity all over the northern part of Europe; and was attended with the most grievous effects. The æra of its introduction is marked by an unhappy revolution in the account of the general state of health

health at that time. The mischief was soon noticed by accurate observers. M. Duncan, a French physician settled at Rotterdam, published a small work in 1705, wherein we find, amidst a great deal of bad theory, some useful precepts against the use of hot liquors *. M. Boerhaave strongly opposed this pernicious custom; all his pupils followed his example, and all our eminent physicians are of the same opinion. The prejudice has at last been prevented from spreading, and within these few years seems to have been rather less prevalent †; but unfortunately it subsists still among valetudinarians, who are induced to continue these pernicious liquors, upon the supposition that all their disorders proceed from a thickness of blood. The tea-pots full of warm water I see upon their tables, put me in mind of Pandora's box, from whence all sorts of evils issue forth, with this difference however, that they do not even leave the hopes of relief behind them; but, on the contrary, by inducing hypochondriac complaints, diffuse melancholy and despair.

§ 71. The sophistry which has induced persons of a weak habit to indulge in warm liquors, is easily destroyed. It is true indeed, that the circulation in them is sometimes weak, slow, and languid; that their fluids are apt to stagnate and form obstructions: but these accidents proceed from a weak tone of the vessels,

* P. Duncan *Avis salutaire contre l'Abus du Café, du Chocolat, et du Thé.* Rotterdam. 1705, 8vo. This work is not to be found now.

† Coffee and tea are forbidden in Sweden, and I am informed by the public news-papers, that a whole considerable province in Germany has voluntarily given up coffee, as the English colonies in America have left off drinking tea. T.

not from a density or inspissation of the fluids, whose consistence is rather deficient in such persons. If we bleed a strong labouring man, and one who passes his life in his study, or any other valetudinarian at the same time, we shall find the blood of the first thick and of a deep red colour, sometimes covered with a white hard kind of skin, similar to that which is found in inflammatory complaints; the blood of the second, will be broken down, watery, pale coloured, and slimy: that part of the blood which in the former instance was formed into a strong skin, makes in the other patient's blood nothing but a soft jelly; the labouring man should therefore rather attenuate his blood if such a state of the blood was a diseased one, by many diluting liquors; the studious man, on the contrary, should endeavour to thicken the consistence of this fluid, and for that reason should abstain from drinking much of any liquor, especially warm fluids, which increase the tendency to a dropsy, already produced, as I have before observed, by a studious and sedentary life. M. Duverney gives a striking instance of this in the *Memoirs of the Royal Academy* *. The stomach more especially is first made sensible of the bad effects of warm fluids, which are hurtful in several ways. This organ is swelled by the quantity we swallow, its fibres are too much distended by the bulk of fluid, and at the same time relaxed by its quality; so that it must necessarily fall into a state of relaxation and weakness, and lose the powers necessary for its functions: the food therefore remains too long in the stomach, and occasions a disagreeable sensation of weight; this we en-

* Of the year 1703.

deavour to get rid of, by drinking a fresh quantity of some diluting liquor, which sweeping away the half-digested aliments, gives a momentary relief, but in reality increases the cause of the disorder. A second bad effect of warm water, and in general of a large quantity of any drink whatever, is, that the juices inservient to digestion are drowned in it, and thereby lose their powers; and as they are of great service in digestion, health must be impaired whenever their activity is blunted, more especially as their office cannot be supplied by any other fluid; and that the most boasted stomachics, several of which are frequently pernicious, can never be of so much service as the saliva and the juices secreted in the stomach. Some people are apt to say, and perhaps some physicians, even that we should drink a great deal to preserve health; and particularly, that we cannot drink too much water: but we must be little acquainted with the laws of the animal œconomy, and the effects of a large quantity of fluid, to give such advice. The relaxation of the stomach, the weakening of the digesting fluids, the precipitation of the aliment before it is half digested, are the certain effects of this too prevalent custom: and these inconveniencies take place in a greater or less degree, according to the quality of the drinks. Those which are swallowed hot or warm produce mischiefs peculiar to themselves, by destroying that soft mucus which lines the inside of the stomach, the bowels, and in general all the hollow viscera, and sheathes their nerves from the too powerful impression of food or any other bodies passing through them. When this mucus is once worn off by the continual washing of a warm drink, commonly saturated with some
acid

acrid particles, which render it still more injurious, the nerves being bare, sharp pains are felt after eating, unless we have been very careful in choosing the softest kind of food. The intestines, deprived of their mucus in the same manner as the stomach, violent cholics are brought on, and the mischief spreading to the internal coats of all the smaller vessels; the nerves, irritated in all parts, acquire that degree of mobility, which numbers are so unhappily * afflicted with.

§ 72. The danger of these drinks is considerably increased, as I have before observed, by the properties of the plants infused in them; the most fatal of these when too often or too freely used, is undoubtedly the tea, imported to us since near two centuries past from China and Japan, which has so much increased dis-

* Our author has certainly accumulated here the utmost that can be supposed in prejudice of this poor oriental leaf. It is certainly noxious in some cases and constitutions; innocent, at least, I really think, in many others, when moderately taken, for any excess, even of warm or of cold water, is bad; and it should seem, from the letter of the eminent lawyer, which Dr. Tissot has the candor to subjoin to his note, that it may be used to medical advantage sometimes. It were but impartial I should think, and perhaps somewhat conclusive on the present topic, to enquire into the general health and longevity of the natives of the most populous empires in which it grows; and where the inhabitants drink stronger infusions of it than ourselves, and we may reasonably suppose, not in less quantities. Credible writers, who have been in these countries, affirm, the inhabitants are strangers to the gout, stone, and rheumatism, and very little subject to the scurvy. Fine tea has been often found to be salubrious, and seldom hurtful, although there may be instances where tea does not agree with some particular constitutions; such persons ought to abstain from it: at the same time there are coarse teas, which certainly must hurt even the strongest constitution, and perhaps such being used chiefly by the vulgar in Switzerland, has made our author so severe on this fashionable drink; or patriotism might perhaps have had some weight with him in crying it down as an article of luxury.

eases of a languid nature in the countries where it has been introduced, that we may discover, by attending to the health of the inhabitants of any city, whether they drink tea or not; and I should imagine one and the greatest benefits that could accrue to Europe, would be to prohibit the importation of this famous leaf, which contains no essential parts besides an acrid corrosive gum, with a few astringent particles *, imparting

* A very able lawyer having read the first edition of this work, was kind enough to write me a very polite letter, containing an important observation, which he permitted me to communicate, and it may perhaps be useful to the public. " In the month of June 1763, I felt a slight heat of urine, " accompanied with pains I had never felt before; from the " account I gave of my case to M. le D. it appeared to him " that I had the gravel, he therefore ordered me some turpentine pills, with an infusion of pareira brava, and stick liquorice; this medicine made me void several fragments of " little stones, appearing as if they had surrounded some small " nucleus, having one side concave, the other convex, with " angles, &c. they sometimes gave me great pain in passing, " but most commonly were only just felt. I was generally " costive, but towards the latter end of November the use of " these medicines brought on a tenesmus, which made me " suffer excessively. M— ordered me to leave off all my medicines, and to take glysters, &c. Afterwards M. le D. " whom I consulted, prescribed some soap pills and other remedies; and the tenesmus came on again. Having read in " the Universal History, that the Chinese were never troubled " with the gravel or stone, " owing as it was said to the great " quantity of tea they drank, which they used as a cold drink, " without mixing any thing with it," I was resolved to try " the effects of this regimen. I had never used myself to tea, " so that the drink was new to me. I took a quarter of an ounce of fine bohea tea, and pouring a quantity of boiling " water upon it, suffered the infusion to stand till it grew cold. " I then poured it off clear, and drank three cups of it in " the morning, at the distance of about an hour between each; " two cups fasting, one after breakfast, and a fourth two " hours after dinner. The first day, the only effect produced " was a more plentiful discharge of urine; but the second day " I voided in the morning twelve large fragments, a nucleus " of the size of a small pea, with some gravel; and what " gave me more satisfaction was, that the use of the tea kept

imparting to the tea when strong, or when the infusion has stood a long time and grown cold, a styptic taste, slightly felt by the tongue, but which does not prevent the pernicious effects of the warm water it is drenched in. These effects are so striking, that I have often seen very strong and healthy men, seized with faintness, gapings, and uneasiness, which lasted for some hours after they had drank a few cups of tea fasting, and sometimes continued the whole day. I am sensible that these bad effects do not shew themselves so plainly in every body, and that there are some who drink tea every day, and remain still in good health; but these people drink it with moderation. Besides, the non-existence of any danger cannot be argued from

“ my body open as in perfect health. I have ever since continued drinking this fluid with some interruptions, sometimes leaving it off for eight days, last summer even for one month; the effect has always been the same, and so far from having my stomach hurt by it, my appetite and my digestion is better; and although my diet is regular, yet I am not obliged to tie myself down to it. I drink some white wine of the coast, mixed with three fourths of water, and most commonly a middling-sized tumbler full is sufficient for one meal. I abstain from cheese and salt meats, &c.

“ I am now within about two months of seventy years of age; a very little is necessary to procure me two or three plentiful stools: before I used myself to tea, a slight infusion of polypody was sufficient for that purpose. I generally used it when I had got a cold, and it agreed very well with me.

“ I have given you this account, that you might endeavour to find out why tea has not had the same effect upon others who have tried it; perhaps they have not taken it in proper dozes, or perhaps they have not sufficiently persevered.

“ In the last month, I repeated the experiment of putting sugar into my tea three times; it increased my urine and kept my body open, but no fragments were voided.”

This observation, which may be of service, is not contrary, any more than the use the Chinese make of tea, to what has been said of the abuse of it in Europe. T.

the instances of some few who have been fortunate enough to escape it.

§ 73. The effects of coffee differing from those of tea, it cannot be placed in the same class; for coffee, although made with warm water, is not so pernicious for this reason, as it is on account of its being a powerful stimulus, producing strong irritations in the fibres by its bitter aromatic oil. This oil combined as it is with a kind of very nourishing meal, and of easy digestion, would make this berry of great consequence in pharmacy, as one of the bitter stomachics, among which it would be the most agreeable, as well as one of the most active. This very circumstance is sufficient to interdict the common use of it, which must be exceedingly hurtful. A continual irritation of the fibres of the stomach must at length destroy their powers: the mucus is carried off, the nerves are irritated and acquire singular spasms, strength fails, hectic fevers come on with a train of other diseases, the cause of which is industriously concealed, and is so much the more difficult to eradicate, as this sharpness united with an oil seems not only to infect the fluids, but even to adhere to the vessels themselves. On the contrary, when seldom taken, it exhilarates, breaks down the slimy substances in the stomach, quickens its action, dispels the load and pains of the head, proceeding from interrupted digestions; and even clears the ideas and sharpens the understanding, if we may credit the accounts of men of letter, who have therefore used it very freely. But let me be permitted to ask, whether Homer, Thucydides, Plato, Xenophon, Lucretius, Virgil, Ovid, Horace, Petronius. to which I may venture to add Corneille and Moliere, whose ma-

ster pieces will ever be the delight of the remotest posterity, let me ask, I say, whether they drank coffee? Milk rather takes off from the irritation occasioned by coffee, but still does not entirely prevent all its pernicious effects, for even this mixture has some disadvantages peculiar to itself. Men of learning, therefore, who are prudent, ought in general to keep coffee as their favourite medicine, but should never use it as a common drink. The custom is so much the more dangerous, as it soon degenerates into a habit of necessity, which few men have the resolution to deprive themselves of. We are sensible of the poison, and swallow it because it is palatable.

§ 74. The choice of air is also a circumstance worth attending to, it extends its influence to the soul, as well as the body; a wholesome air, says Hippocrates *, gives understanding; the air of Bœotia and Thrace made the mind heavy, *Bæotum in crasso jurares aere natum*; that of Athens enlivened it, and Plato says, that Minerva had chosen this place to bring up the wisest of the human race †. It is incumbent upon the learned to chuse as much as possible, a temperate, pure, and dry air, which is very beneficial to the lungs, encourages the circulation, and strengthens the fibres: cold and dry air is tolerable; but damp air is very dangerous, it increases the disorders incident to men of letters, relaxes, obstructs perspiration,

* De Morbo sacro, N^o 17.

† In his *Timæus*, at the beginning; and in another place he says; “It is certain that the situation of countries contributes not a little to make men better or worse.” De legib. lib. 5. T.

produces catarrhs, rheumatisms, and palsies *. The learned are like Augustus, and all other delicate persons, who cannot well bear the extremities of either cold or heat, especially the latter, which are most obnoxious, as they cannot so easily guard against them as against the extremities of cold. In the summer time Milton was seized with a depression of spirits, nearly resembling idiotism. M. Dodart speaks of a young lad eight years old, of a remarkably strong genius, whose memory failed during the *dog-days*, and who recovered it again when the air had been cooled for a few days †; and M. Lancisi, the famous physician to the two pope's; Innocent XI. and Clement XII. declared in a letter to his friend Cocchi, that at a time when the great heats prevailed, if the air was not refreshed by some gentle breezes, he was unable either to think or write ‡. Intense cold irritates the nerves and brings on convulsions in those persons whose nerves are very susceptible; the learned should therefore avoid the two extremes. They are not indeed always at liberty to choose their place of residence, nor is it in the power of every one to go to Baia or Alexandria in search of the most wholesome air. The country, which is the place best calculated for think-

* M. Pellegrini, an eminent physician, and professor of anatomy at Venice, who has published a very accurate and elegant translation of the *Avis aux Peuples*, with some very useful additional remarks, has given an observation which shews the danger of damp rooms; it is of a woman in the prime of life, and in very good health, who was always seized with an apoplexy whenever she stood in a damp place, which went off when she removed into a dry air; and which never returned after she had determined to quit that damp apartment. *Averimenti al popolo.* T.

† *Histoire de l'Academie Royale des Sciences, Ann. 1705, p. 72.*

‡ Lancisi ad Cocchi, p. 47.

ing, and where we breathe the purest air, is not always convenient for men of letters, who are often obliged to fix themselves in towns for many reasons; they ought at least to pick out as wholesome a lodging as possible; their rooms should be lofty, light, exposed to the wind in the summer, and to the sun in winter; they should fix themselves at a distance from places which emit unwholesome exhalations, such as slaughter-houses, the shambles, tanner's yards, &c. they should take great care frequently to renew the air of their rooms; and this is one reason why rooms with chimneys where the air is constantly renewed are more healthy than those which are furnished with stoves*; another very important advantage they have over them, is, that our feet is not so much exposed to cold as they are with stoves.

§ 75. Cold in the feet, which we are liable to whenever we take no exercise, and are not near the fire, is hurtful to weak habits by bringing on heaviness in the head, sore throats, pains in the breast, and stubborn colds: it prevents perspiration, interrupts digestion, occasions violent cholics, and contributes greatly to disturb sleep. I have directed some learned men to warm the soles of their feet every night at the fire, before they went to bed, even till they felt pain, and by this means have brought on sleep, after they had taken the most powerful opiates to no purpose, a kind of medicine generally pernicious to them. Others have found benefit from wearing constantly to the soles of their feet some gently stimulating plasters. The

* Breviter & sine tergiversatione audeo definire, sessionem multo salubriorum esse ante luculentum focum, quam in hypocausto. *Pleniùs De togat. valet. tuend. p. 57.*

blood is so apt to be carried up to the head in learned people, that they ought by no means to neglect any reasonable method of preventing it. Some have been so bold as to tie a napkin dipt in cold water round their heads to enable them to continue studying for a longer time; but this is a dangerous experiment which I by no means advise. It may be very proper, however, generally to keep the head bare or very lightly covered, and if we do not wear our hair, to wash it every morning with cold water, as well the ears, face, and neck *. When we feel our head suddenly filled or heated, it is the best way to remain for some moments perfectly motionless, not even allowing ourselves to speak; we may afterwards take a little cold water, and especially abstain from study for several hours.

§ 76. The care all studious persons ought continually to take to divert the fluids from the head, should prevent them from giving way to sleep after dinner, which produces a contrary effect. If the custom has once taken root, and that we cannot possibly bear up against it, we should at least make the sleep as short as possible, and imitate Augustus, whom I have already often proposed as an example to men of letters; when he found himself sleepy, “ he quiet-
“ ed himself for a short time, in his cloaths,
“ only covering his feet and holding his hand
“ before his eyes †.” Before we go to sleep,

* Vid. Celsus De medicinâ, lib. 1. cap. 4.

† Sueton. in vit. C. O. August. c. 82.

I have spoken of the inconveniencies of sleeping after dinner, in a letter to M. Haller, *Epistol. de variolis, apoplex. et hydrope*. This custom, in use among the ancients, was necessary for them, to rest during the heat of the day, in those very hot countries, where they rose early in the morning. T.

it is proper to loosen the collar of the shirt, and untie the garters.

§ 77. The use of tobacco is another pernicious custom we could hardly have supposed men of letters would have been addicted to. “Tobacco,” says the Lord Chancellor Bacon, has “been lately introduced amongst us, and is a species of henbane which disorders the brain just as opium does.” It acts upon our senses in the same manner as strong liquors do, so that those who begin to smoke are affected as persons who have drank too much; in process of time the effect ceases because we use ourselves to smoking as we do to drinking. The custom has been brought to us from savages, who having no other employment but that of hunting for their food, were delighted to find a relief against the tiresomeness of indolence, and which helped them to kill time. It could never have been imagined, two hundred years ago, that we should one day have been under the necessity of warning the learned of some countries, of the great dangers they expose themselves to by this practice.

Although tobacco may not be hurtful to every body, yet I may venture to affirm, that it is certainly pernicious to most people, less however to some than to others, and that it is not necessary for any one. Smokers will undoubtedly exclaim against this doctrine, as drunkards would against a discourse on the bad effects of wine; but it is sufficient for me if I can prevent young people, who are not already slaves to this custom, from contracting it, and open the eyes of those who are entrusted with the education of youth, upon this point, which may appear on examination more deserving of their attention than it has hitherto seemed to be.

This

This method of using tobacco * was first brought into Europe in 1560, by John Nicot, envoy from France to Lisbon, who learned it, if I mistake not, from a Dutchman lately arrived from Florida. The smoke of the plant contains a very acrid salt, and a narcotic sulphur wrapped up in the oily part †. The irritation produced by this salt on the salivary glands being still increased by the heat, brings on a plentiful discharge of saliva, which being conveyed into the stomach, occasions, in persons who are not used to it, vomitings and violent purgings; these effects cease gradually, but smokers generally observe, that the body is kept open by this custom; which they look upon as wonderfully beneficial, whereas it is no more so, than it would be to have an evacuation after taking an ounce of manna ‡. It may be asked, whether this bitter purgative fume does not destroy the solitary and other worms, as we are every day told. I cannot take upon me to deny this particular, but at the same time know of no facts which prove it; and this advantage, if it even does exist, is much less certain than the mischiefs arising from this acrimony, the chief of which is a too plentiful salivation, with all the disorders attending it. In the first place,

* All this article, which appears to me out of its place, is taken from my letter to M. Haller, De variolis, apoplex. et hydrope. It was not in the first edition of this work, but the French translator having inserted it in his, I have been obliged to follow his example.

T.

† We know that the oil of tobacco applied to a wound is a speedy and deadly poison, although the leaves are sometimes used to advantage.

T.

‡ The purgative property of the tobacco is proved by the good effects sometimes produced, and the violent operations at other times brought on by glysters of the decoction, or smoke of this plant.

smoaking

smoaking certainly increases the secretion of the saliva, and if we smook much it cannot all be swallowed, so that it must be spit out, and fails afterwards in the digestion, because no more is secreted for the rest of the day; the organs, accustomed to this irritation, perform their office but imperfectly when that ceases, so that we see people who smook do not spit any more after they have laid aside their pipes. 2dly, The powers of the stomach and intestines are impaired by the too frequent stimulus, the appetite is blunted, the stomach and intestines become sluggish, digestion is at length disturbed, and great smokers are attacked nearly with the same kinds of diseases as hard drinkers are. 3dly, The humours are even infected by the acrimony of the salts of the tobacco. 4thly, As smoaking makes one swallow a great deal of fluid, this quantity of drink becomes a cause of disorders more or less dangerous according to the quality of the liquor.

The narcotic principle brings on other mischiefs still more alarming; it increases the disorders of the stomach as all anodines do; it occasions confusion and pains in the head, vertigos, anxieties, lethargies, and apoplexies, of which we have but too many examples. It is evident from hence how dangerously we deceive ourselves in smoaking to guard against apoplexies. I have myself known several persons, and heard of a great many more, who have been carried off by this disease, at the very time they were using this famous preservative, which is certainly rather a cause than a prophylactic of apoplexies. I know of no great smoker who has ever lived to a very advanced age. De Heyde regretted very much a learned physician who killed himself in the prime of life
by

by a too free use of tobacco; and it is not in the least astonishing to see a list of the most grievous disorders proceeding from this cause, and attested by authors of veracity. Van Helmont, Tulpius, the learned burgomaster of Amsterdam, and many others, have known apoplexies brought on by this habit. The physicians of Breslaw have reported to us the shocking instance of the two brothers of Silesia, who having challenged one another who should continue smoaking for the longest time together, died both apoplectic, one at the 17th, the other at the 18th pipe. The *Ephemerides curiosorum naturæ*, mention an epilepsy; De Heyde and Tulpius, very bad disorders of the breast; P. Borelli, a jaundice; the late M. Werlhof, the gout; M. Van Sweiten, very troublesome disorders of the liver; M. de Haller, a consumption, &c. all proceeding from this cause. I have known the most violent head-ach and a burning heat in the mouth and throat come on after smoaking a few pipes to carry off the tooth-ach, which was still more violent after the use of this remedy.

Must we therefore conclude, that the smoaking of tobacco is of no use? At the same time that I absolutely condemn it as a daily custom, I do not say but that it may sometimes prove an useful medicine. In relaxed and watery habits, this smoak, drawn through a long narrow tube, to the sides of which the narcotic oil may stick, as foot to a chimney *, may sometimes stimu-

* The Persians, and some of the Turks, use pipes several feet long, they smoak sitting or reclined after their manner, and part of the stem of the pipe passes through water. *Russel's Natural History of Alep.* p. 12. The smoak is by this method exceedingly softened, and loses almost all its acrimony; so that neither the taste nor the smell of the tobacco remains.

late the salivary glands when too tardy, may quicken the action of the stomach and intestines, and dissipate some disorders proceeding from too great a quantity of serum. It has also been sometimes used with success to decrease a too plentiful salivation, when produced by an excessive relaxation of the salivary canals, upon which this snook acts, as sharp stomachics act upon the stomach when entirely relaxed. It may likewise have relieved some asthmatic persons when conveyed into the lungs with the air we breathe, by loosening and causing an expectoration of that viscid phlegm which obstructs their bronchiæ. I have read, that some fat people have been relieved by it; must not this effect have been produced by its decreasing their appetite, rather quickening the action of their fibres, and sharpening their humours? M. Hoffman has known violent cholics cured by it, but does not say whether this was by its acting as a purgative or an anodyne.

§ 78. Tobacco in powder with which we fill our nostrils every instant, is also in some measure dangerous. The olfactory nerves are always irritated by it, and I know not of what use this irritation can be to a man in health. The strongest men who use it too freely *, are troubled with vertigos; and it affects weak persons so powerfully, that it makes them even faint away; and I know a great number of women who are seized with a fit of the vapours if they take a pinch of snuff fasting *. At length the sense of smelling is blunted, and all the nerves fall into a kind of numbness. The most
alarming

* A robust active country-gentleman who uses snuff, has observed, that if he takes a pinch while fasting, it produces the same effects, as if he had taken a bumper of brandy, and
for

alarming symptoms have been produced by a mass of snuff collected in the stomach *, and I am thoroughly convinced, by some recent observations, of the truth of what has been said with regard to snuff, that it weakens the memory and hurts the sight, which is itself a very strong motive for persuading men of letters to lay aside the custom of taking it †.

§ 79. These are the chief remarks to be made upon the causes of the diseases incident to the learned, and the methods of preventing them; but when once the disorders are come to such a height as to require the assistance of medicine, they must be treated according to the nature of the symptoms, and the rules prescribed by art against the particular kind of disease the patient may be affected with; but it is not the design of the present dissertation to point out these; we should, however, pay some regard to the kind of life the learned are engaged in, which has always some influence on

for the greatest part of a day incapacitates him from applying to any business, which requires thought and attention.

* Trilleri Dissertat. de tabaci ptarmaci abusu, opusc. t. 1. p. 221. This learned physician has very thoroughly shewn the dangers attending the use of this powder, which, he says, has been forbidden throughout all Spain under heavy penalties, by an arret of the 17th Dec. 1760. Many other sovereigns, such as the king of Prussia, the emperor of Turkey, the grand duke of Russia, the pope, and the king of England, had endeavoured to prohibit the use of snuff in their respective dominions. T.

† Our author's general censures of tobacco are certainly just; and his limitations of it, in a medical way, very judicious; to which we may add, that those who are already enslaved to the habit of it, in any manner, are less likely to be relieved by a medical administration of it. To speak from my own experience, I had smoked, though never immoderately, for above twenty years of my life, being first compelled to it by very acute and even chronical paroxysms of the tooth-ach. But above as many years past, I was alarmed with a second touch of a vertigo from a single pipe, which I immediately broke, and have never smoked since.

the health, and requires a choice of medicines suited to the state of the patient.

§ 80. When a learned man is really ill, the first thing to be recommended to him is entirely to leave off study; however hard the injunction may be, it is absolutely necessary*, and it is hurting him very much to be in the least remiss upon this article. He must even forget that there are such things as books and sciences, his study should always be locked, he should give himself up to ease, cheerfulness, and country diversions and become what nature has made men, an husbandman and a gardener: there is no other method of drawing him away from his reflections, and while they are indulged he cannot get well. If it were possible to discover a medicine which could suspend the thinking powers for a time without danger, it would certainly be a specific against the diseases of the learned.

§ 81. When they are excessively weak, they should sometimes be put upon a milk diet, if they can be made to digest it. The famous Houdart de la Motte, who had always an infirm state of health, was obliged to confine himself for a long time to a vegetable and milk diet†. At other times it is necessary, with a very soft kind of nourishment, to blend the use of strong cordial wines, provided the breast still remains free, and that there is no slow fever; ice-water for common drink is an excellent strengthener, agreeing very well with the weak stomachs of the learned.

* Difficile est longum subito deponere amorem,
Difficile est: verum hoc, qua cubet, efficias.
Una salus hæc est, hoc est tibi pervincendum.

Catull. 82.

† Année littéraire. 1768. t. 1. p. 53.

§ 82. The bark is a very efficacious medicine, when the strength is exhausted from intense application; it restores digestion, strengthens the vessels, gives a proper consistence to the blood when dissolved, encourages the secretions, especially perspiration, gives power to the nerves, and suppresses their irregular motions. One of our best geometricians, when he found himself fatigued with calculations, used to recover his spirits by drinking a glass of the decoction of the bark he had always by him.

A new kind of wood exported from Guiana, has of late been used, it is called the Bitter * Wood of Surinam, or the Wood of Quassi: it is extremely light, and yet very hard; of a pale yellow colour, without smell; and of a bitter sharp taste; it is more bitter than the bark, and does not seem more disagreeable; the essential difference between them, both with regard to their taste and their properties, is that the quassi has not the astringency which the bark has; with respect to their effects, I could wish to have a greater number of observations on the quassi than I have been able to pick up since I used it, in order to make the comparison with any degree of certainty; but from the experiments already made, I am inclined to think, that this new wood is perhaps preferable to the

* This wood of quassi, or bitter wood of Surinam, is not as yet an officinal here; nor have I ever seen it. The cortex eleutheriz, frequently called also cascarilla, I have known to be a considerable assistant to the bark in some tedious intermittents; improving, in my opinion, both its flavour and its stomachic virtues; especially where sweets do not disagree, this bark being considerably fragrant, and still more so on its being burnt slowly. The republic of medicine has an agreeable prospect of being still further obliged to Dr. Tissot, for communicating the event of the observations and experiments he is making on this medicinal wood. K.

bark, in the intention of strengthening a weak stomach, recovering the digestion, dissipating flatulencies, and relieving costiveness proceeding from debility, which makes it particularly useful to the learned; and the bark is still a better medicine in all febrile, gangrenous, purulent, worm, and convulsive cases *.

§ 83. Cold bathing, the effects of which I have before shewn to be analagous to those of the bark, is also a very proper medicine; it strengthens the stomach, muscles, nerves; and even the soul itself, and enables them to support fresh fatigues. I have known several young persons throw themselves into the cold bath after being wearied and depressed with study, who always found upon coming out, a peculiar strength of mind, and a fresh disposition to study. If weakness is excessive, the bath will rather do hurt than good; its first action is repelling of the humours upon the internal organs, and the benefits of it depend upon the reaction of those organs; if they have not the power to re-act, the effect is more hurtful than advantageous.

The ancients were so well acquainted with the good effects of cold water, that they seldom suffered a day to pass without bathing in it, however busy they might be; it is also certain that they frequently used warm bathing, but they did it for reasons which men of letters cannot alledge. If the learned ever experience much benefit from these sort of baths, it must

* I am obliged to M. Schinz, an eminent practitioner at Zurich, for first making me acquainted with this excellent medicine, on which we find a dissertation in the collection published by Linnaeus, under the title of *Amoenitates Academicæ*, t. 6. and I hope it will soon be introduced into common practice.

be in peculiar cases of heat, inflammation, and dryness; but in general they are not calculated to answer the principal intentions of cure in disorders proceeding from excessive application: Augustus found himself hurt by them, and his physician Antonius Musa ordered him the cold bath with complete success, notwithstanding his weakness. I have often been consulted by men who had impaired their health by the labours of the mind, and who have recovered it by temperance, rest, and particularly by the cold bath, the effects of which were very evident.

§ 84. Frictions are also of much use, and not to be neglected. If every morning, while in bed lying on our backs with the knees a little raised, we rub the stomach and belly with a piece of flannel, we increase the circulation in all the viscera of the abdomen, prevent obstructions, dissipate such as have already begun to be formed, promote the discharge of the bile, facilitate the secretions, and restore the digestive powers. If we rub the whole body, perspiration is encouraged, and the circulation quickened; which indeed is so much accelerated by strong frictions continued for a long time, that a burning fever may be brought on, so that in some degree they may supply the want of exercise. The ancients who were sensible of all the advantages resulting from this practice, not only used it as a remedy, but also as a daily method of preserving health. Unfortunately the custom had been almost entirely abolished, till the English physicians began to restore it at the end of the last century. They cannot be of more service to any than they are to the learned; but before they use them, I would advise them to read what Celsus and Galen have written upon this subject.

§ 85. How useful soever the medicines I have spoken of may be to the learned, mineral waters are not less beneficial. There are many sorts of them, and they may all have their advantage in peculiar cases; but those which are most proper, and most commonly of use in the first symptoms of the diseases incident to the learned, are the simple, acidulated, and ferrugineous waters *. The Author of nature, who has endowed them with great powers, has also scattered them widely abroad; so that there are few countries where they are not to be found, many where they frequently occur, and fresh discoveries are daily made of them. Among the most efficacious may be reckoned the waters of Egra, in Bohemia; of Tonstein, † in the archbishopric of Cologne; of Seltzer, in the electorate of Treves; of Peterstal, in Alsatia; of Amphion, or Evian, in Savoy ‡; of Rolle, on the borders of our lake, in a happy situation; of Lausanne; and to mention now the stronger, the waters of Forges, in Normandy; of M. Casalbigi, at Passi; of Ribas, in Spain; of Tunbridge, in England; of Altwasser, in Silesia, on the confines of Poland; of Medewi and Wicksborg, in Sweden; of Schwalbach, in Franconia; of Spa, in the principality of Liege; and of Pyrmont, in the county of Waldeck: but the waters of Seltzer, Schwalbach, and Spa, are most in use, and drank all over Europe. They always get the better of obstructions in the viscera of the lower belly,

* Some physicians call them alkaline, a name very contrary to that of acidulated; both names are justifiable; but I should rather prefer that of alkaline, as it seems to agree better with the effects of the medicine. T.

† Acidulæ Antoninæ.

‡ Instead of the acidulated waters of Evian, the translator has made me recommend the hot sulphureous waters of Aix in Savoy; I correct this mistake, because it is a dangerous one. T.

recover the digestive powers, restore sleep, and make perspiration easy ; hence we may see how beneficial they must be to men of letters. If to the advantages derived from themselves, we add those which follow from leaving off application entirely ; from the breathing free and open air ; from the exercise we take, and the diet we follow at the same time, we shall readily account for the surprising cures effected by these waters, especially if they are drank on the spot ; first, because they are then more powerful ; secondly, because the journey, the change of objects, and dissipation, do as much good as the waters ; for it is well known, that some of the learned have been cured of the hypochondriac disease, by a journey undertaken merely with a design of visiting some libraries at a distance. The waters, however, ought never to be taken without the advice of a physician ; for the more powerful they are, the more capable are they of doing mischief when improperly applied. The learned Morhof, having had some cause of uneasiness in an advanced age, which brought on a cachochemic habit of body, determined to take the Pyrmont waters, contrary to the advice of his physician, and died on his return home *.

§ 86. When the learned are attacked with acute diseases, we must not forget that the patient we have to deal with is a studious man, and therefore seldom has the degree of strength we find in others. It has already been observed, that they were less disposed to inflammatory complaints, the disorders of strong, plethoric, and healthy men, than to putrid diseases, which proceed from bad digestions and obstructions in the viscera of the abdomen. Bleeding, there-

* Behren's Select. Dietetic. p. 480.

fore, is less suited to their complaints than purging is *, for it lowers them too much; and I have remarked, whenever it was indispensably necessary to take some blood from men of letters, whose health has been injured by study, that they were almost always seized with symptoms of a nervous hypochondriac disorder. Gassendi's death is said to be owing to bleedings, which deprived him at once of his strength. M. Gesner, professor of natural philosophy at Zurich, one of the men who does the greatest honour to Switzerland, having been bled at Paris for a slight fever, in the prime of his life, continued for six months in a languor he could not recover from, without much difficulty †. Another physician of my acquaintance shared the same fate; and all practitioners in cities, where there are men of learning, have undoubtedly had many opportunities of being convinced of this important truth; the bad effects of an improper bleeding prescribed to a weak man are not so soon repaired as we may imagine.

§ 87. Purging is better ‡ adapted to strike at the root of disorders incident to the learned than bleeding; it is a kind of medicine which acts in the most successful manner with them; and it is difficult to get fairly rid of their acute diseases without this evacuation: indeed it is their favourite medicine, and they are so much prejudiced for it, that they are even apt to use

* Rammazini, p. 656.

† Vita Gesneri, p. 2.

‡ Gentle purging will be still more preferable to bleeding, where the studious patient is considerably advanced in years, rather depressed for his time of life, and not sanguine. If bleeding should be thought quite necessary, very elderly people bear the loss of it better, by cupping, from the superficial and capillary vessels, than from the aperture of a considerable vein. K.

it needlessly when in health : costiveness, to which they are subject, occasions an uneasiness not to be relieved but by some evacuations ; and the medicines which operate in this way appear to them extremely valuable ; and indeed there would be no impropriety in using them, provided they chose such as are mild and strengthening. The lord chancellor Bacon recommends rhubarb, which he used indiscreetly * ; but I should prefer aloes, before prescribed by Celsus, as it spoils the digestion less than any other purgative ; it seems to act as a soap, and supply the place of the bile, the virtue of which is often lost among the learned. If, on the contrary, the bile is too active, which makes them subject to continual colics, because their nerves are constantly irritated, the mildest laxatives are to be employed, and the pulp of cassia, fresh drawn, is the most suitable medicine in this case. But whatever purgative they may chuse, I cannot caution them too much against the danger of recurring to it too often : these frequent purgings accustom the body to be badly nourished, and it consequently becomes weak ; besides, the intestines become still more indolent, and at length will not perform their functions ; the fine mucus lining them is destroyed, and leaves the nerves bare ; from whence proceed violent and frequent colics, obliging the patient to confine himself to the very mildest regimen, from which he cannot

* “ Non possum probare institutum Verulamii, qui, ut in
 “ ipsius vita traditur, sex aut septem diebus ante cibum rha-
 “ barbaro usus est, ut immune corpus excrementis redderet.
 “ Satius fuisset, si correctâ paulatim victus ratione, ab omni
 “ remedio abstinuisset. Sic enim excrementis, ipsoque adeo
 “ remedio purgante, toties assumendo, facile carere, vitamque
 “ haud dubie longius producere potuisset.” J. G. Bergerus de
 Commodis Vitæ sobriæ. § 25.

swerve in the least instance, without suffering the most excruciating pains.

§ 88. Whenever men of letters are attacked with a fever, we must attend to the state of their brain, which is easily confused; so that the slightest fever often throws them into a delirium, the more dangerous, as it takes off from the influence of the nerves on the body, and therefore increases weakness, and disturbs the crisis, which is always less perfect, in proportion as the nerves are more disordered. The nerves of studious men suffer from the time they begin to be indisposed; they have immediately pains in their head; the day-light, the noise, company, and every thing wearies them; and I have often seen a simple fit of an ephemeral ague accompanied and followed with debility and other symptoms, sufficient to alarm any one, who, not knowing the true cause, might be induced to consider them as symptoms of a putrid disorder.

§ 89. The convalescences of the learned are always tedious, their strength recovers itself but slowly, the mind is particularly sensible of the effects of the disease; and I have hardly seen one of them in such a situation, who has not complained of his memory and the weakness of his head, strongly marked in his face by a foolish appearance. If they are incautious enough to return to their studies before they are perfectly recovered, they lay the foundation of the most dangerous diseases; the eyes, the head, and the stomach will be first attacked, and all the animal functions will feel the shock. The influence of intense application upon the nerves is so strongly marked, that I have often known reflection, or even an engaging book, suspend the operation of a purgative. The learned,

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by neglecting to take care of themselves in a convalescent state, are exposed to the hazard of never being able to recover their health completely, and making themselves incapable of any great literary undertaking : it is playing a very losing game, to sacrifice the good of a whole life to the satisfaction of giving one's self up a few days sooner to the object of one's passion ; but the passions never consider the odds ; and a passion for sciences is perhaps the most blind of any.

Watchfulness fatigues learned convalescents more than any thing else ; they recover their sleep with much greater difficulty than other patients ; sometimes cordial wines act very favourably in this case ; they produce the best effects, especially with such as are not used to them ; they act as narcotics, and are not attended with the same inconveniencies : on the contrary, they restore the powers of the stomach, weakened by the quantity of warm liquors the disorder has made it necessary to drink ; they bring back the strength, and raise the spirits.

§ 90. Whatever care the learned ought to take of their health, one of the most important is, to avoid making themselves slaves to it : they are accused of giving way to custom easily, and a rigid observance of custom is a real slavery. I have known some men of letters so subjected to their regimen, that their mind was entirely dependant on their body. What indeed can we think of a man who is rendered unfit for any thing by his dinner being put off for an hour, the heat of his stove being altered, or the precise hour of his going to-bed or getting up interrupted ? I remember to have read, several years ago, a work written to shew, that men of letters ought to indulge themselves in all

all sorts of conveniencies : a man who suffers it certainly not able to study with attention ; but the real way for men of letters to indulge in all their conveniencies, is to use themselves to curtail their wants.

§ 91. I have exposed as circumstantially as possible, the causes, symptoms, preservatives, and cure of the diseases produced by intense application, you will find however, that the task is not completed, and you will be sensible, gentlemen, that I have omitted the most certain preservative of health, I mean that contentment of mind proceeding from integrity of manners ; an upright conduct is the parent of chearfulness, and chearfulness is the promoter of health. The man of letters finds an example for himself in Horace's description of the happy man :

“ *Mens conscia recti in corpore sano.*”

Wise and learned have long been synonymous terms ; and virtue and knowledge was learned in the schools ; a man of learning and a profligate was a being unknown :

“ *Quid musæ sine moribus vanæ proficiant ?*”

Men were despised who employed themselves only in searching after what was good and honest, saw what was right and did what was wrong ; and consequently deprived themselves of that most pleasing of all satisfactions arising from the remembrance of a good action ; the effect of which, as of all agreeable sensations, is to impart vigour, facility, and regularity to all the animal functions, which are the true foundations of sound health : whereas melancholy, the constant attendant of remorse, relaxes the fibres, disturbs the digestions, destroys

stroy the powers, and leads on to a consumption. I cannot call to mind, without emotion, the pangs of some men, who having abused the talents bestowed on them, have been seized with horrors difficult to describe, in the last moments of an ill-spent life. In the contrary, I reflect with infinite pleasure on the calm and comfortable end of such men, as "have lived," according to Pliny's advice, "through the whole course of their life, as one would wish to live upon a sick-bed;" and who have enjoyed, even to the brink of the grave, in an advanced old age, the satisfaction of an irrevocable conscience, and preserved the quickness of their senses and the powers of their understanding. The celebrated historian Paulus Jovius, having enquired with surprise of Nicol. Leonici, one of the most learned men in the fifteenth century, by what art he had preserved, during the space of ninety years, a sound memory, perfect senses, an upright body, and a vigorous health, was answered by that physician, that it was the effect of upright manners, tranquillity of mind, and temperance*.

§ 92. It would be needless to enter into any farther particulars, I shall therefore conclude with a reflection, which may perhaps be necessary to prevent any sophistical conclusions being drawn from this work. It represents indeed a picture of diseases brought on by excessive application: but it must not be argued from

* "Vividum, inquit, ingenium perpetuâ vitæ innocentia, salubre vero corpus hilari frugalitatis præsidio facile tuemur." Petr. Castellani Vitæ Medic. &c. Leonici was born at Vicenza in 1428, and died at Ferrara in 1524, after having taught and practised physic upwards of sixty years in that place.

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hence, that I condemn study as a dangerous thing, or that I am desirous of raising a disgust to it. The great question concerning the utility of the sciences has been much canvassed, and I am far from having any design of engaging in the contest; for even if it should be true, which is not however my opinion, that upon the whole they do not contribute to the happiness of society, it can hardly be denied, that learning adds to the happiness of the person who possesses it, provided he has acquired it without the expence of his health, or the neglect of his social duties *.

Although I have given many instances of the danger of early application, I have not meant to insinuate that the earliest days of childhood should be consumed away in total idleness; this is not at all my opinion. I think children are susceptible of acquiring some degree of knowledge in the first years of their life †; but we should certainly give them these impressions in a different manner than we have done hitherto. It seems particularly a thing of great consequence, that the early education of children should be directed with a view to the profession they are designed for: the education of young men intended for study should be differently managed from that of others, and their faculties ought to be taken more particular care of in

* “ *Adolescentiam alunt, senectutem oblectant secundas res ornant, adversis solatium præbent, delectant domi, non impediunt foris, pernoctant nobiscum, peregrinantur, rusticantur.*” Cicero Orat. pro Archia.

† “ *Quamlibet parum sit, quod contulerit ætas prior, majora tamen aliqua discet puer ipso anno, quo minora didicisset. Hoc per singulos annos prorogatum in summum proficit: et quantum in infantiâ præsumptum est temporis, adolescentiæ acquiritur.*” Quintilianus de Instit. Orat. lib. 1. cap. 1.

infancy. Let us suppose ten children of nine years old, designed for different professions; I could wish that the one destined for the sciences should be the least knowing at that age; at twelve years, the age when Pascal and Newton were yet unacquainted with Latin, he should begin to gain the ascendancy, and at sixteen he should leave them far behind. In condemning those who give themselves up to study with passionate imprudence, it was not my design to blame those who cultivate the sciences with wisdom and propriety; for if we are exposed to the most cruel disorders by giving up everything to the love of letters, on the other hand we expose ourselves to shame by remaining in ignorance.

The Ynca Atabaliba having found out the ignorance of Fr. Pizarre, conceived an invincible contempt for him; which circumstance appears to me an argument sufficient to prove the necessity of education.

F I N I S.









